

Partial Closure Report and
Certification
Surface Impoundment and
Land Disposal Areas
Union Manufacturing, Inc.,
Chandler Plant

EPA ID No. AZ088301213
WTI Job No. 2174J018



**WESTERN
TECHNOLOGIES
INC.**

Phoenix

3737 East Broadway Road
P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

Flagstaff

2400 East Huntington Drive
Flagstaff, Arizona 86001
(602) 774-8708

Tucson

423 South Olsen Avenue
Tucson, Arizona 85719
(602) 624-8894

Farmington

400 South Lorena Avenue
Farmington, New Mexico 87401
(505) 327-4966

Las Vegas

300 West Boston Avenue
Las Vegas, Nevada 89102
(702) 382-7483

Grand Junction

3184 Mesa Avenue
Grand Junction, Colorado 81504
(303) 434-9873

April 27, 1984



Mr. Harry Seraydarian, Director
Toxics & Waste Management Division
United States Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, CA 94105

RECEIVED

MAY 1984

RE: Closure Certification by Union Manufacturing Inc. WESTERN TECHNOLOGIES, INC.
I.D. #AZ088301213 AZ088301213
MK 7-4-84 PHOENIX, ARIZONA

Dear Mr. Seraydarian:

This letter represents the final compilation of activities pertaining to the closure of the Union Manufacturing Inc. facility at 6625 West Allison Road, Chandler, Arizona.

As per our approved Closure Plan, contaminated soil was removed from areas A and B to a level where the maximum concentration of lead and chromium do not exceed a toxicity level of 5 PPM; soil was similarly removed from area C to achieve background levels for xylene and toluene.

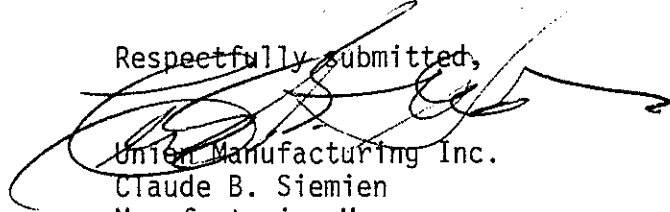
During the excavation, additional soil discoloration was uncovered in a 15 ft. X 15 ft. area directly east of area A, and was also removed. Subsequent analysis by Western Technologies showed this material to be of a non-hazardous nature.

All of the above activities were observed by Mr. Peter F. Allard, P.E., of Western Technologies, Inc.

A summarization of participants, material removed, and costs, as well as photographs and copies of manifests and invoices as prepared by Western Technologies, Inc., is enclosed for your review.

Union Manufacturing, Inc. is confident that it has fulfilled the necessary requirements for facility closure and petitions the U.S. EPA to render this site closed.

Respectfully submitted,


Union Manufacturing Inc.
Claude B. Siemien
Manufacturing Manager

CS/sl
enclosures
cc: D.J. Scimeca, Executive Vice President
Norm Weiss, Arizona Dept. of Health Services

Union MANUFACTURING INC.
Subsidiary of MODEL INDUSTRIES, INC.

P.O. Box 760 • Pima-Chandler Industrial Park
Chandler, Arizona 85224 • (602) 961-1022



**WESTERN
TECHNOLOGIES
INC.**

3737 East Broadway Road
P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

Union Manufacturing, Inc.
6625 West Allison Road
Chandler, Arizona 85224

April 18, 1984

Attn: Claude B. Siemien
Manufacturing Manager

Re: Partial Closure Report and
Certification
Surface Impoundment and
Land Disposal Areas
Union Manufacturing, Inc.,
Chandler Plant
EPA ID No. AZ088301213

WTI Job No. 2174J018

The following areas at the Union Manufacturing, Inc., Chandler Plant, have been decontaminated as outlined in the partial closure plan Revision 1, submitted by Western Technologies Inc., on June 30, 1983, and approved by EPA Region IX on October 3, 1983.

- A. Paint stripping sludge disposal area
- B. Overflow area from Location A
- C. Area below paint storage loading dock

Samples from Area D, the concrete lined tank for washer rinsate, did not contain E P toxic levels of chromium. Area D was removed from the closure plan by EPA Region IX.

Hazardous contaminant levels of lead and chromium at Areas A and B, and of xylene and toluene at Area C, were found above the 1 to 2.5 ft. level in a Phase 1 sampling and monitoring report submitted to EPA on September 6, 1983.

Closure activities consisted of removal of contaminated soil, followed by backfill with soil from off site and regrading of the affected areas, and are described in detail. The hazardous waste manifests used to transport contaminated soils to the approved disposal site are included as requested by EPA.

In summary, the affected areas of the plant facility have been decontaminated as outlined in the approved closure plant.

Respectfully submitted,
WESTERN TECHNOLOGIES INC.


Peter F. Allard, P.E.
Chief Chemical Engineer

cjc

Copies to: Addressee (3)

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SUMMARY OF CLOSURE ACTIVITIES

A. General

The certification and summary of closure activities by Union Manufacturing Inc. was prepared by Claude B. Siemien, Manufacturing Manager, and is submitted as Attachment 1. The sampling locations, boring logs for subsurface sampling, laboratory analysis and preliminary reports for soils analyzed in the closure investigation are compiled in Attachment 2. Field engineer reports of observations during closure are given in Attachment 3. Photographs of site conditions during closure activities are given in Attachment 4. The closure plan as approved by EPA Region IX is included as Attachment 5.

The closure involves four separate areas referred to in the EPA Inspection Report of December 1, 1982 as Areas A, B, C, and D. A site plan locating these areas is given in Figure 1 as copied from the inspection report.

B. Personnel

Removal of contaminated soils was directed by Claude Siemien and Richard Hafer of Union Manufacturing, Inc., and conducted by Arizona Backhoe Service, Tempe, Arizona. Wastes were transported by Chemical Disposal Co., Inc., Rillito, Arizona, to the BKK Landfill in West Covina, California. Details of site decontamination activities by Union Manufacturing are included in Attachment 1.

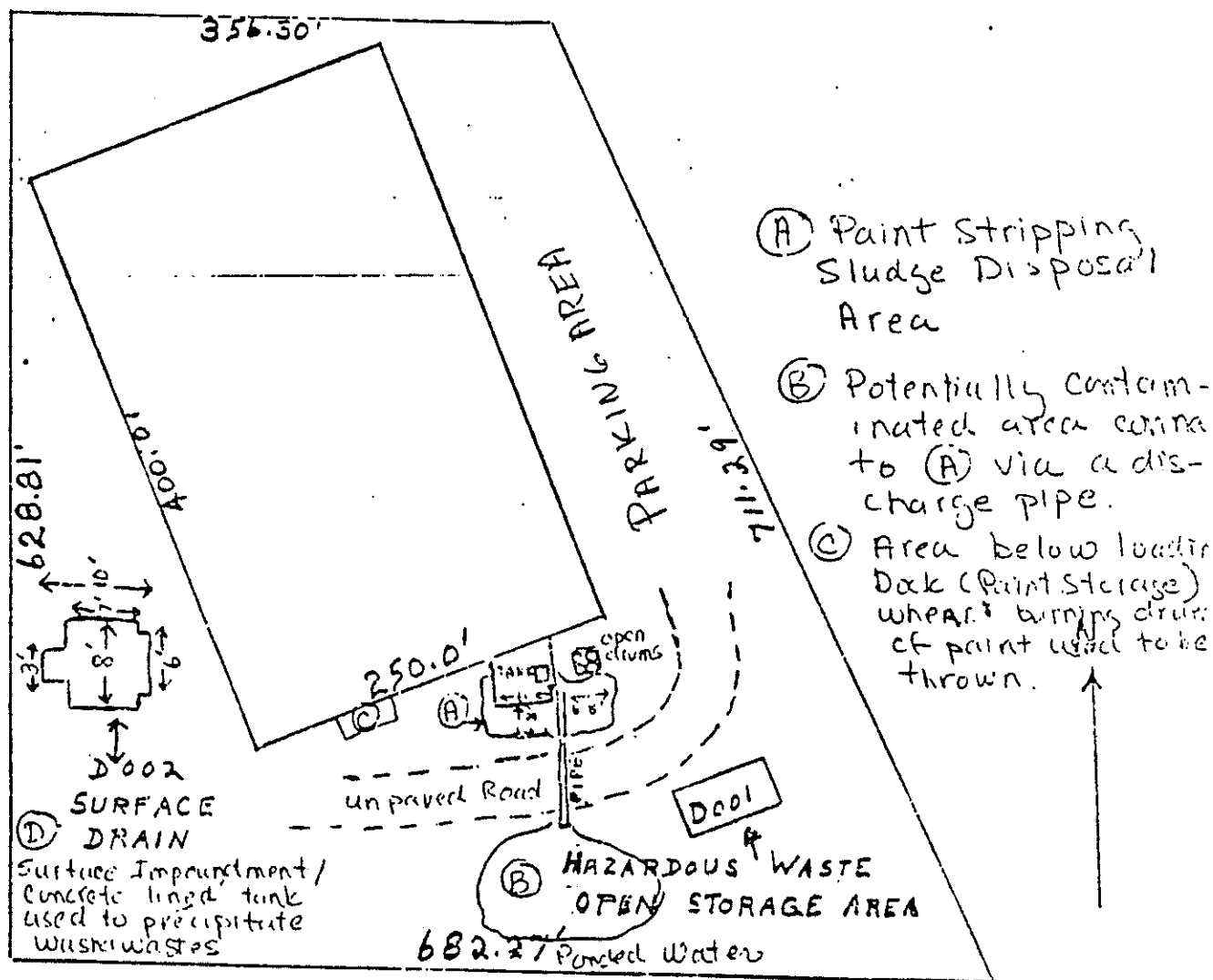
The project engineer for Western Technologies Inc., was Peter Allard for preparation of the closure plan, supervision of WTI personnel, observation of closure activities, and site photographs. Subsurface samples were collected by Mike Ennefer.



A3D088301213

FACILITY LOCATED ON THE GILA RIVER INDIAN RESERVATION INDUSTRIAL PARK.
 PRIMARILY SURROUNDED BY DESERT WITH SOME AGRICULTURE.
 AREA-FLAT.

Investigator has added waste areas
 (A), (B), (C), (D) to facility diagram per
 Facility Representative's information.



Scale - 1" = 120'

Preparation of soil boring logs, removal of borings from the split-spoon sampler, and logging of samples were performed by Chet Pearson, who also collected Area D samples of materials exposed by backhoe. The sample of purple discolored soil exposed at Area A during closure was collected by Mr. Allard. Chemical analysis of samples was performed at the WTI Phoenix laboratory under the direction of Frederick Amalfi.

To our knowledge, neither the Arizona Department of Health Services Bureau of Waste Control, nor EPA Region IX, sent representatives to the site during closure.

C. Additions and Modifications to the Closure Plan

Based on results of the Phase I sampling and monitoring program, hazardous concentrations of lead were not found in the soils and concrete structure in Area D. Consequently, Area D was removed from the closure as communicated by EPA Region IX in a letter to Claude Siemien, Model Industries Inc., Yorkville, Illinois, from Harry Scraydarian, Director, Toxics and Waste Management Division, on October 3, 1983.

During removal of contaminated soil in Area A on February 22, 1984, a region of purple discolored soil was found. It was decided by Union Manufacturing to remove the material as a hazardous waste, since the excavating crew and equipment were already on site, rather than delay disposition of the material until an analysis was performed. Approximately 30 tons of discolored soil were removed.



A sample of the discolored soil was collected by the Project Engineer, and was subsequently analyzed as follows:

EP toxicity	
Lead	0.20 ppm
Chromium	0.30 ppm
Total Iron	1.1 %
pH	10.3 units

The material was below EP toxic limits of 5 ppm for lead or chromium, and was not corrosive by pH. The iron content indicates the presence of ferric oxide used as a red pigment in paint. The purple color appears to be from a combination of the soil and pigment.

Removal of contaminated soil was performed using a backhoe and grader loading into dump trucks, instead of by plant labor shoveling by hand into drums. The quantity of soil removed was 146 tons instead of the initial estimate of approximately 13 tons. The affected areas of the site were regraded with fill delivered from off the site, which was not included in the original closure plan. Finally, the closure costs are greater than initially estimated as a result of these changes. Details are given in Attachment 1.



Union Manufacturing, Inc.
Job No. 2174J018

D. Contaminant Limits

Maximum concentrations of metals contaminants for the characteristic of EP toxicity are listed below as given in 40 CFR 261.24.

Arsenic	5.0 milligrams/liter(parts per million)
Barium	100.0
Cadmium	1.0
Chromium	5.0
Lead	5.0
Mercury	0.2
Selenium	1.0
Silver	5.0

Maximum concentrations of xylene and toluene were limited by EPA Region IX to background levels, which we have interpreted as less than the sampling and analytical method detection limit of 1 part per million (ppm). Phenol and butanol were not found above the detection limits of 0.5 and 1 ppm respectively at the location analyzed.



Union Manufacturing, Inc.
Job No. 2174J018

Attachment 1.

Closure Certification by Union Manufacturing Company



SUMMARY CLOSURE

Closure Coordination: Western Technologies, Inc.
3737 East Broadway Road
Phoenix, AZ 85036
Peter F. Allard, P.E.
Chief Chemical Engineer

Soil Removal, Loading, Grading: Arizona Backhoe Service
4027 South Birchett Drive
Tempe, AZ 85282

Transportation: Chemical Disposal Co., Inc.
P.O. Drawer 397
Rillito, AZ 85246
EPA I. D. # AZT050010008

Disposal Site: BKK
2210 South Azusa Avenue
West Covina, CA 91790
EPA I.D. # CAD067786749

Hazardous Waste Description

U.S. DOT proper shipping name: Hazardous Waste, Solid N.O.S.
Hazard class: ORM-E
Hazardous Material I.D. No./
Waste No. : NA 9189

<u>Haul Date:</u>	<u>Manifest No.</u>	<u>Weight (tons)</u>	<u>Dates Accepted</u>
02/22/84	1938	23.91	02/23/84
02/22/84	1944	21.89	02/23/84
02/22/84	1945	24.55	02/23/84
02/22/84	1400	21.96	02/25/84
02/22/84	1406	24.56	02/25/84
02/23/84	1407	22.09	02/25/84
02/24/84	1851	7.32	02/25/84

Costs:

Soil removal, Loading, Fill, Grading	\$ 2,400.00
Transportation	8,522.51
Disposal	*4,758.49
Field Engineer	<u>500.00</u> (Est)
TOTAL	\$ 16,181.00

* Included in transportation billing.



SEE REVERSE SIDES FOR
INSTRUCTIONS. PLEASE TYPE
OR PRINT CLEARLY.

CALIFORNIA HAZARDOUS WASTE MANIFEST
STATE DEPARTMENT OF HEALTH SERVICES
HAZARDOUS MATERIALS MANAGEMENT SECTION
744 P STREET, SACRAMENTO, CA 95814

① MANIFEST
NUMBER

1938

PRESS HARD

GENERATOR (GENERATOR MUST COMPLETE)

③ NAME Union Mfg.
EPA NO. A200583012113
ADDRESS 6625 W. Ellison Rd
CITY, STATE, ZIP CODE Chandler, AZ
PHONE NO. 602 961 1062
ORDER PLACED BY _____ ORDER DATE _____
P.O. CONTRACT NO. _____

③ DESIGNATED TSD FACILITY

(AUTHORIZED TO OPERATE UNDER AN APPROVED STATE OR FEDERAL PROGRAM)
NAME BKK
EPA NO. CAD067756749
ADDRESS 2210 Azusa
CITY, STATE, ZIP CODE W. Covina, Calif.
PHONE NO. 965 0916

④ ALTERNATE TSD FACILITY

NAME Casualty Resources
EPA NO. CAD020748125
ADDRESS NTU Rdy
CITY, STATE, ZIP CODE Casualty, Calif.
PHONE NO. _____

⑤ U. S. DOT PROPER SHIPPING NAME	U. S. DOT HAZARD CLASS	UN/NA I.D. NO	WEIGHT OR VOLUME	UNITS	CONTAINERS: NUMBER
WASTE <u>Contaminated Soil</u>	<u>ORH-E</u>	<u>NA9189</u>	<u>48000</u>	<u>LBS</u>	DRUMS <input type="checkbox"/> BAGS <input type="checkbox"/> CARTONS <input type="checkbox"/> DUMP TRUCK <input checked="" type="checkbox"/>
WASTE					TANK TRUCK <input type="checkbox"/> OTHER <input type="checkbox"/>

⑥ WASTE CATEGORY 611 ⑦ EX. HAZ. WASTE PERMIT NO. _____ ⑧ GENERATING PROCESS _____
⑨ LIST COMPONENTS: CONC. RANGE UNITS
A 98% Part _____
B 2 To Part _____
C _____
D _____
⑩ WASTE PROPERTIES: PH ☐ TOXIC ☐ FLAMMABLE ☐ CORROSIVE IRRITANT ☐ REACTIVE ☐ SENSITIZER ☐ CARCINOGEN/MUTAGEN
⑪ PHYSICAL STATE: ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ GAS ☐ OTHER _____
⑫ SPECIAL HANDLING INSTRUCTIONS: ☐ GLOVES ☐ GOGGLES ☐ RESPIRATOR ☐ OTHER _____

GENERATOR CERTIFICATION: THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED & LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION AND THE EPA.

IN THE EVENT OF A SPILL CONTACT THE NATIONAL
RESPONSE CENTER, U. S. COAST GUARD 1-800-424-8802.

⑬

SIGNATURE OF AUTHORIZED AGENT & TITLE

DATE SHIPPED

TRANSPORTER (HAULER MUST COMPLETE)

⑭ NAME CHEMICAL DISPOSAL CO., INC.
EPA NO. AZT050010008
ADDRESS P.O. DRAWER 397
CITY, STATE, ZIP CODE RILLITO, AZ 85246
PHONE NO. (602) 624-2348

JOB NO. _____
UNIT NO. 340-417

⑮ PICK-UP DATE 2/21/84
TIME 3 ☐ AM ☒ PM

⑯ Benito 3364
SIGNATURE OF AUTHORIZED AGENT & TITLE

TSD FACILITY (OPERATOR MUST COMPLETE)

⑰ NAME BKK
EPA NO. CAD067756749
⑱ INDICATE ANY SIGNIFICANT DISCREPANCIES BETWEEN MANIFEST AND SHIPMENT
⑳ IF WASTE IS HELD FOR DELIVERY ELSEWHERE, SPECIFY THE DESIGNATED TSD FACILITY
NAME _____
EPA NO. _____
REVISED 11/80

⑲ QUANTITY (IF MEASURED) 23.91
⑳ STATE FEE (IF ANY) \$ 153.07

⑳ HANDLING OR DISPOSAL METHOD:
☐ SURFACE IMPOUNDMENT ☒ LANDFILL
☐ INJECTION WELL ☐ LAND TREATMENT
☐ TREATMENT (SPECIFY) _____
☐ RECOVERY OR REUSE ☐ STORAGE/TRANSFER

SIGNATURE

Benito 3011

2-23-84

SEE REVERSE SIDES FOR
INSTRUCTIONS. PLEASE TYPE
OR PRINT CLEARLY.

PRESS HARD

CALIFORNIA HAZARDOUS WASTE MANIFEST

STATE DEPARTMENT OF HEALTH SERVICES
HAZARDOUS MATERIALS MANAGEMENT SECTION
744 P STREET, SACRAMENTO, CA 95814

① MANIFEST
NUMBER

1944

GENERATOR (GENERATOR MUST COMPLETE)

③ NAME Union m54
EPA NO. 920038301213
ADDRESS 6625 W. Ellison Rd
CITY, STATE, ZIP CODE Chandler Ariz
PHONE NO. 602-961-1062
ORDER PLACED BY _____ ORDER DATE _____
P.O. / CONTRACT NO. _____

③ DESIGNATED TSD FACILITY

(AUTHORIZED TO OPERATE UNDER AN APPROVED STATE OR FEDERAL PROGRAM)
NAME P.K.K.
EPA NO. 71AD0677866419
ADDRESS 2210 S. AZUSA AVE
CITY, STATE, ZIP CODE W. COVING CA. 91790
PHONE NO. 965-0911

③ ALTERNATE TSD FACILITY

NAME _____
EPA NO. _____
ADDRESS _____
CITY, STATE, ZIP CODE _____
PHONE NO. _____

⑤ U. S. DOT PROPER SHIPPING NAME	U. S. DOT HAZARD CLASS	UN/NA I.D. NO	WEIGHT OR VOLUME	UNITS	CONTAINERS: NUMBER
WASTE <u>Contaminated Vol</u>	<u>ORM-E</u>	<u>H69139</u>	<u>48000</u>	<u>LBS</u>	DRUMS <input type="checkbox"/> BAGS <input type="checkbox"/> CARTONS <input type="checkbox"/> <input checked="" type="checkbox"/> DUMP TRUCK
WASTE					TANK TRUCK <input type="checkbox"/> OTHER <input type="checkbox"/>

⑥ WASTE CATEGORY 611 ⑦ EX. HAZ. WASTE PERMIT NO. _____ ⑧ GENERATING PROCESS _____
⑨ LIST COMPONENTS: 98% Dirt CONC. RANGE UNITS
A 2% Paint UPPER LOWER ☐ % ☐ PPM E _____
B _____ ☐ % ☐ PPM F _____
C _____ ☐ % ☐ PPM G _____
D _____ ☐ % ☐ PPM
NONHAZARDOUS MATERIAL _____ %
⑩ WASTE PROPERTIES: PH ☐ TOXIC ☐ FLAMMABLE ☐ CORROSIVE IRRITANT ☐ REACTIVE ☐ SENSITIZER ☐ CARCINOGEN/MUTAGEN
⑪ PHYSICAL STATE: ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ GAS ☐ OTHER _____
⑫ SPECIAL HANDLING INSTRUCTIONS: ☐ GLOVES ☐ GOGGLES ☐ RESPIRATOR ☐ OTHER _____

GENERATOR CERTIFICATION: THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED & LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION AND THE EPA.

IN THE EVENT OF A SPILL CONTACT THE NATIONAL
RESPONSE CENTER, U. S. COAST GUARD 1-800-424-8802.

⑬

SIGNATURE OF AUTHORIZED AGENT & TITLE

DATE SHIPPED

TRANSPORTER (HAULER MUST COMPLETE)

⑭ NAME CHEMICAL DISPOSAL CO., INC.
EPA NO. AZT050010008
ADDRESS P.O. DRAWER 397
CITY, STATE, ZIP CODE PHILIP, AZ 85246
PHONE NO. (602) 624-2348

JOB NO. _____
UNIT NO. 340-417

⑮ PICK-UP DATE 2-21-84
TIME _____ ☐ AM ☐ PM

⑯ X Ray Edwards 3236
SIGNATURE OF AUTHORIZED AGENT & TITLE

TSD FACILITY (OPERATOR MUST COMPLETE)

⑰ NAME P.K.K.
EPA NO. 71AD0677866419
⑱ INDICATE ANY SIGNIFICANT DISCREPANCIES BETWEEN MANIFEST AND SHIPMENT
See BILL OF LADING FOR SIGNATURE
⑲ IF WASTE IS HELD FOR DELIVERY ELSEWHERE, SPECIFY THE DESIGNATED TSD FACILITY.
NAME _____
EPA NO. _____
REVISED 11/80

⑳ QUANTITY (IF MEASURED) 81.89
㉑ STATE FEE (IF ANY) \$ 140.10

㉒ HANDLING OR DISPOSAL METHOD
☐ SURFACE IMPOUNDMENT ☒ LANDFILL
☐ INJECTION WELL ☐ LAND TREATMENT
☐ TREATMENT (SPECIFY) _____
☐ RECOVERY OR REUSE ☐ STORAGE/TRANSFER

⑳ Sam A 3011 2-23-84

SEE REVERSE SIDES FOR
INSTRUCTIONS. PLEASE TYPE
OR PRINT CLEARLY.

PRESS HARD

CALIFORNIA HAZARDOUS WASTE MANIFEST
STATE DEPARTMENT OF HEALTH SERVICES
HAZARDOUS MATERIALS MANAGEMENT SECTION
744 P STREET, SACRAMENTO, CA 95814

① MANIFEST
NUMBER

1945

GENERATOR (GENERATOR MUST COMPLETE)

② NAME W. ELLISON
EPA NO. 420000001010101
ADDRESS 2210 S. AZUSA AVE
CITY, STATE, ZIP CODE W. COVINA CA. 91790
PHONE NO. 626-221-1002
ORDER PLACED BY P.O. ORDER DATE 2/21/84
CONTRACT NO. 605-0911

③ DESIGNATED TSD FACILITY

NAME PKIC
EPA NO. CA101677816747
ADDRESS 2210 S. AZUSA AVE
CITY, STATE, ZIP CODE W. COVINA CA. 91790
PHONE NO. 626-221-1002

④ ALTERNATE TSD FACILITY

NAME _____
EPA NO. _____
ADDRESS _____
CITY, STATE, ZIP CODE _____
PHONE NO. _____

⑤ U. S. DOT PROPER SHIPPING NAME

WASTE HAZARDOUS WASTE U. S. DOT HAZARD CLASS 1 UN/NA I.D. NO. 1993 WEIGHT OR VOLUME 4500 UNITS 1 CONTAINERS: NUMBER 1
WASTE HAZARDOUS WASTE DRUMS 1 TANK TRUCK 0 BAGS 0 CARTONS 0 DUMP TRUCK 1 OTHER 0

⑥ WASTE CATEGORY 111

⑦ LIST COMPONENTS:

A HAZARDOUS WASTE CONC. RANGE UPPER LOWER UNITS 1 % 100 PPM E 0 % 0 PPM
B HAZARDOUS WASTE CONC. RANGE UPPER LOWER UNITS 1 % 100 PPM F 0 % 0 PPM
C HAZARDOUS WASTE CONC. RANGE UPPER LOWER UNITS 1 % 100 PPM G 0 % 0 PPM
D HAZARDOUS WASTE CONC. RANGE UPPER LOWER UNITS 1 % 100 PPM NONHAZARDOUS MATERIAL 0 %

⑧ WASTE PROPERTIES: ☒ TOXIC ☐ FLAMMABLE ☐ CORROSIVE IRRITANT ☐ REACTIVE ☐ SENSITIZER ☐ CARCINOGEN/MUTAGEN

⑨ PHYSICAL STATE: ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ GAS ☐ OTHER

⑩ SPECIAL HANDLING INSTRUCTIONS: ☐ GLOVES ☐ GOGGLES ☐ RESPIRATOR ☐ OTHER

GENERATOR CERTIFICATION: THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED & LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION AND THE EPA.

IN THE EVENT OF A SPILL CONTACT THE NATIONAL
RESPONSE CENTER, U. S. COAST GUARD 1-800-424-8802.

SIGNATURE OF AUTHORIZED AGENT & TITLE

DATE SHIPPED

TRANSPORTER (HAULER MUST COMPLETE)

⑪ NAME CHEMICAL DISPOSAL CO., INC.
EPA NO. AZT0500100008
ADDRESS P.O. DRAWER 397
CITY, STATE, ZIP CODE PHOENIX, AZ 85246
PHONE NO. (602) 624-2348

JOB NO. 340-417
UNIT NO. 340-417

⑫ PICK-UP DATE 2-21-84
TIME AM ☐ AM ☐ PM

SIGNATURE OF AUTHORIZED AGENT & TITLE

TSD FACILITY (OPERATOR MUST COMPLETE)

⑬ NAME PKK
EPA NO. CA101677816747

⑭ INDICATE ANY SIGNIFICANT DISCREPANCIES BETWEEN MANIFEST AND SHIPMENT

⑮ IF WASTE IS HELD FOR DELIVERY ELSEWHERE, SPECIFY THE DESIGNATED TSD FACILITY:

NAME _____
EPA NO. _____
REVISED 11/80

⑯ QUANTITY (IF MEASURED) 24.55

⑰ STATE FEE (IF ANY) \$ 157.12

HANDLING OR DISPOSAL METHOD:

☐ SURFACE IMPOUNDMENT ☒ LANDFILL
☐ INJECTION WELL ☐ LAND TREATMENT
☐ TREATMENT (SPECIFY) _____
☐ RECOVERY OR REUSE ☐ STORAGE/TRANSFER

SIGNATURE OF AUTHORIZED AGENT & TITLE

REMEMBER: SIGN OR
TRUE VS. F E TY
OR PRINT CLEARLY

PRESS HARD

GENERATOR (GENERATOR MUST COMPLETE)

① NAME UNION MFG. INC.
EPA NO. 142008830112113
ADDRESS 6665 WEST ALLISON ROAD
CITY, STATE, ZIP CODE CHANDLER, AZ 85224
PHONE NO. 602-961-1022
ORDER PLACED BY _____
P.O. CONTRACT NO. _____

ALI NI/ ZAI USI TEI IFE
STATE DEPARTMENT OF HEALTH SERVICES
HAZARDOUS MATERIALS MANAGEMENT SECTION
744 P STREET, SACRAMENTO, CA 95814

② DESIGNATED TSD FACILITY

(AUTHORIZED TO OPERATE UNDER AN APPROVED STATE OR FEDERAL PROGRAM)

NAME BKK
EPA NO. CA1001677867749
ADDRESS 2210 SO. AZUSA AVENUE
CITY, STATE, ZIP CODE WEST COVINA, CALIF. 91791
PHONE NO. 213-965-0916

③ ALTERNATE TSD FACILITY

NAME _____
EPA NO. _____
ADDRESS _____
CITY, STATE, ZIP CODE _____
PHONE NO. _____

④ U. S. DOT PROPER SHIPPING NAME

WASTE BULK HAZARDOUS WASTE, SOLID, NOS.
WASTE _____

U. S. DOT HAZARD CLASS

ORM-E

UN/NA I.D. NO

NA9189

WEIGHT OR VOLUME

48,000

UNITS

CONTAINERS: NUMBER

DRUMS
TANK TRUCK

BAGS
OTHER

CARTONS

☒ DUMP TRUCK

⑤ WASTE CATEGORY

⑥ LIST COMPONENTS:

A 98% DIRT
B 2% PAINT
C _____
D _____

⑦ EX. HAZ. WASTE PERMIT NO.

UNITS
% PPM
% PPM
% PPM
% PPM

⑧ GENERATING PROCESS

CONC. RANGE
UPPER LOWER
% PPM
% PPM
% PPM

⑨ WASTE PROPERTIES:

☐ TOXIC ☐ FLAMMABLE ☐ CORROSIVE IRRITANT ☐ REACTIVE ☐ SENSITIZER ☐ CARCINOGEN/MUTAGEN

⑩ PHYSICAL STATE:

☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ GAS ☐ OTHER

⑪ SPECIAL HANDLING INSTRUCTIONS:

☐ GLOVES ☐ GOGGLES ☐ RESPIRATOR ☐ OTHER

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IN THE EVENT OF A SPILL CONTACT THE NATIONAL
RESPONSE CENTER, U. S. COAST GUARD 1-800-424-8802.

⑫ Ronald Barrin

SIGNATURE OF AUTHORIZED AGENT & TITLE

DATE SHIPPED

TRANSPORTER (HAULER MUST COMPLETE)

⑬ NAME CHEMICAL DISPOSAL CO., INC.

EPA NO. AZT0500100008

ADDRESS P.O. DRAWER 397

CITY, STATE, ZIP CODE RILLITO, AZ 85246

PHONE NO. (602) 624-2348

JOB NO.

UNIT NO.

⑭ PICK-UP DATE

TIME _____ AM _____ PM

TSD FACILITY (OPERATOR MUST COMPLETE)

⑮ NAME BKK

EPA NO. CA1001677867749

⑯ INDICATE ANY SIGNIFICANT DISCREPANCIES BETWEEN MANIFEST AND SHIPMENT

⑰ IF WASTE IS HELD FOR DELIVERY ELSEWHERE, SPECIFY THE DESIGNATED TSD FACILITY

NAME

EPA NO. _____

REVISED 11/80

⑱ QUANTITY (IF MEASURED)

⑲ STATE FEE (IF ANY) \$ 21.96

⑳ HANDLING OR DISPOSAL METHOD

☐ SURFACE IMPOUNDMENT ☐ LANDFILL
☐ INJECTION WELL ☐ LAND TREATMENT
☐ TREATMENT (SPECIFY)
☐ RECOVERY OR REUSE ☐ STORAGE/TRANSFER

⑳ Ronald Barrin
SIGNATURE OF AUTHORIZED AGENT & TITLE

DATE ACCEPTED 2-25-84

REVERSE SIDE OR
TRUE IS PLEASE TYPE
OR PRINT CLEARLY.

PRESS HARD

GENERATOR (GENERATOR MUST COMPLETE)

③ NAME UNION MFG. CO.
EPA NO. A20088301213
ADDRESS 6625 W. ELLISON ROAD
CITY, STATE, ZIP CODE CHANDLER, AZ.
PHONE NO. 602-961-1062
ORDER PLACED BY _____
P.O. / CONTRACT NO. _____
ORDER DATE _____

ALI NIA ZAF JSN EN FES
STATE DEPARTMENT OF HEALTH SERVICES
HAZARDOUS MATERIALS MANAGEMENT SECTION
744 P STREET SACRAMENTO, CA 95811

② DESIGNATED TSD FACILITY

(AUTHORIZED TO OPERATE UNDER AN APPROVED STATE OR FEDERAL PROGRAM)

NAME BKK
EPA NO. CAD0067786747
ADDRESS 2210 S. AZUSA DRIVE
CITY, STATE, ZIP CODE WEST COVINA CALIF 91791
PHONE NO. 213-965-0916

④ ALTERNATE TSD FACILITY

NAME _____
EPA NO. _____
ADDRESS _____
CITY, STATE, ZIP CODE _____
PHONE NO. _____

⑤ U. S. DOT PROPER SHIPPING NAME

WASTE BULK HAZARDOUS WASTE, S.O.
WASTE _____

U. S. DOT HAZARD CLASS

ORM-E

UN/NA I.D. NO.

NA989

WEIGHT OR VOLUME

18,000

UNITS

CONTAINERS: NUMBER

DRUMS _____
TANK TRUCK _____
BAGS _____
OTHER _____
CARTONS ☒ DUMP TRUCK

⑥ WASTE CATEGORY

⑦ LIST COMPONENTS:

A Dirt 9890
B Paint 20
C _____
D _____

CONC. RANGE
UPPER LOWER

⑧ EX. HAZ. WASTE PERMIT NO.

UNITS

_____%
_____%
_____%
_____%
_____%

PPM
PPM
PPM
PPM
PPM

E
F
G

⑨ GENERATING PROCESS

CONC. RANGE
UPPER LOWER

UNITS

_____%
_____%
_____%
_____%
_____%

PPM
PPM
PPM
PPM
PPM

⑩ WASTE PROPERTIES:

PH ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ GAS ☐ OTHER
☐ TOXIC ☐ FLAMMABLE ☐ CORROSIVE IRRITANT ☐ REACTIVE ☐ SENSITIZER ☐ CARCINOGEN/MUTAGEN
☐ GLOVES ☐ GOGGLES ☐ RESPIRATOR ☐ OTHER

⑪ SPECIAL HANDLING INSTRUCTIONS:

GENERATOR CERTIFICATION: THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED & LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION AND THE EPA.

IN THE EVENT OF A SPILL CONTACT THE NATIONAL
RESPONSE CENTER, U. S. COAST GUARD 1-800-424-8802.

TRANSPORTER (HAULER MUST COMPLETE)

⑭ NAME CHEMICAL DISPOSAL CO., INC.
EPA NO. AZT050010008
ADDRESS P.O. DRAWER 397
CITY, STATE, ZIP CODE RILLITO, AZ 85246
PHONE NO. (602) 624-2348

JOB NO. _____
UNIT NO. _____

⑮ PICK-UP DATE _____
TIME _____ AM _____ PM

TSD FACILITY (OPERATOR MUST COMPLETE)

⑰ NAME BKK
EPA NO. CAD0067786747

⑱ QUANTITY (IF MEASURED)

24.56

⑲ STATE FEE (IF ANY)

157.18

⑳ HANDLING OR DISPOSAL METHOD

☐ SURFACE IMPOUNDMENT ☒ LANDFILL
☐ INJECTION WELL ☐ LAND TREATMENT
☐ TREATMENT (SPECIFY) _____
☐ RECOVERY OR REUSE ☐ STORAGE/TRANSFER

㉑ INDICATE ANY SIGNIFICANT DISCREPANCIES BETWEEN MANIFEST AND SHIPMENT

SEE BILL OF LADING FOR SIGNATURE

㉒ IF WASTE IS HELD FOR DELIVERY ELSEWHERE, SPECIFY THE DESIGNATED TSD FACILITY

NAME _____
EPA NO. _____

SIGNATURE OF AUTHORIZED AGENT & TITLE

DATE ACCEPTED

SEE REVERSE SIDES FOR INSTRUCTIONS. PLEASE TYPE OR PRINT CLEARLY.

PRESS HARD

CALIFORNIA HAZARDOUS WASTE MANIFEST
STATE DEPARTMENT OF HEALTH SERVICES
HAZARDOUS MATERIALS MANAGEMENT SECTION
744 P STREET, SACRAMENTO, CA 95814

① MANIFEST NUMBER

1437

GENERATOR (GENERATOR MUST COMPLETE)

③ NAME UNION MFG. INC.
EPA NO. 420087301213
ADDRESS 6625 WEST ALLISON ROAD
CITY, STATE, ZIP CODE CHANDLER AZ. 85224
PHONE NO. 602-961-1022
ORDER PLACED BY _____ ORDER DATE _____
P.O. / CONTRACT NO. _____

③ DESIGNATED TSD FACILITY

(AUTHORIZED TO OPERATE UNDER AN APPROVED STATE OR FEDERAL PROGRAM)

NAME BKK
EPA NO. CA00067736197
ADDRESS 2210 S. AZUSA AVENUE
CITY, STATE, ZIP CODE WEST COVINA, CA 91791
PHONE NO. 713-915-0916

④ ALTERNATE TSD FACILITY

NAME _____
EPA NO. _____
ADDRESS _____
CITY, STATE, ZIP CODE _____
PHONE NO. _____

④ U. S. DOT PROPER SHIPPING NAME

U. S. DOT HAZARD CLASS

UN/NA I.D. NO

WEIGHT OR VOLUME

UNITS

CONTAINERS: NUMBER

WASTE POUL HAZARDOUS WASTE, SOLID U.S. DOT HAZARD CLASS ORM-E UN/NA I.D. NO NA 9149 WEIGHT OR VOLUME 48,000 UNITS _____
WASTE _____ CONTAINERS: NUMBER _____
DRUMS _____ BAGS _____ CARTONS _____ DUMP TRUCK _____
TANK TRUCK _____ OTHER _____

④ WASTE CATEGORY

④ LIST COMPONENTS:

CONC. RANGE
UPPER LOWER

UNITS

PPM
PPM
PPM
PPM

E

F

G

NONHAZARDOUS MATERIAL _____ %

④ GENERATING PROCESS

CONC. RANGE
UPPER LOWER

UNITS

PPM

PPM

PPM

④ WASTE PROPERTIES: PH. _____ TOXIC _____ FLAMMABLE _____ CORROSIVE IRRITANT _____ REACTIVE _____ SENSITIZER _____ CARCINOGEN/MUTAGEN _____

④ PHYSICAL STATE: _____ SOLID _____ LIQUID _____ SLUDGE _____ SLURRY _____ GAS _____ OTHER _____

④ SPECIAL HANDLING INSTRUCTIONS: _____ GLOVES _____ GOGGLES _____ RESPIRATOR _____ OTHER _____

GENERATOR CERTIFICATION: THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED & LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION AND THE EPA.

IN THE EVENT OF A SPILL CONTACT THE NATIONAL RESPONSE CENTER, U. S. COAST GUARD 1-800-424-8802.

SIGNATURE OF AUTHORIZED AGENT & TITLE

DATE SHIPPED

TRANSPORTER (HAULER MUST COMPLETE)

④ NAME CHEMICAL DISPOSAL CO., INC.
EPA NO. AZT050010008
ADDRESS P.O. DRAWER 397
CITY, STATE, ZIP CODE RILLITO, AZ 85246
PHONE NO. (602) 624-2348

JOB NO. 3

UNIT NO. 340

④ PICK-UP DATE 2/23/80

TIME _____

AM PM

SIGNATURE OF AUTHORIZED AGENT & TITLE

TSD FACILITY (OPERATOR MUST COMPLETE)

④ NAME BKK
EPA NO. CA00067736197

④ QUANTITY (IF MEASURED) 22.09

④ STATE FEE (IF ANY) \$ 141.38

④ HANDLING OR DISPOSAL METHOD

SURFACE IMPOUNDMENT _____ LANDFILL _____

INJECTION WELL _____ LAND TREATMENT _____

TREATMENT (SPECIFY) _____

RECOVERY OR REUSE _____ STORAGE/TRANSFER _____

④ INDICATE ANY SIGNIFICANT DISCREPANCIES BETWEEN MANIFEST AND SHIPMENT

④ IF WASTE IS HELD FOR DELIVERY ELSEWHERE, SPECIFY THE DESIGNATED TSD FACILITY

NAME _____
EPA NO. _____
REVISED 11/80

SEE REVERSE SIDES FOR
INSTRUCTIONS. PLEASE TYPE
OR PRINT CLEARLY.

PRESS HARD

CALIFORNIA HAZARDOUS WASTE MANIFEST
STATE DEPARTMENT OF HEALTH SERVICES
HAZARDOUS MATERIALS MANAGEMENT SECTION
744 P STREET, SACRAMENTO, CA 95814

① MANIFEST
NUMBER

1851

GENERATOR (GENERATOR MUST COMPLETE)

③ DESIGNATED TSD FACILITY

④ ALTERNATE TSD FACILITY

③ NAME UNION MFG. CO.
EPA NO. A Z D 0 8 3 3 0 1 2 1 3
ADDRESS 6625 W ALLISON
CITY, STATE, ZIP CODE CHANDLER, AZ 85224
PHONE NO. 602 961-1062
ORDER PLACED BY _____ ORDER DATE _____
P.O. / CONTRACT NO. _____

NAME BKK
EPA NO. C A D D 0 6 7 7 8 6 7 4 9
ADDRESS 2210 S AZUSA AVE.
CITY, STATE, ZIP CODE WEST COVINA, CA 91791
PHONE NO. 213 965-0916

NAME CASMALIA RESOURCES
EPA NO. C A D D 0 2 0 7 4 8 1 2 5
ADDRESS NTU ROAD
CITY, STATE, ZIP CODE CASMALIA, CA 93429
PHONE NO. _____

⑤ U. S. DOT PROPER SHIPPING NAME	U. S. DOT HAZARD CLASS	UN/NA I.D. NO	WEIGHT OR VOLUME	UNITS	CONTAINERS: NUMBER
HAZARDOUS WASTE, SOLID N.O.S.	ORM-E	NA 9189	48,000	1	
WASTE					DRUMS <input type="checkbox"/> BAGS <input type="checkbox"/> CARTONS <input checked="" type="checkbox"/> DUMP TRUCK
WASTE					TANK TRUCK <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> BULK <input type="checkbox"/>

⑥ WASTE CATEGORY HAZARDOUS WASTE

⑦ EX. HAZ. WASTE PERMIT NO. N/A

⑧ GENERATING PROCESS N/A

⑨ LIST COMPONENTS: PAINT CONTAMINATED DIRT

	CONC. RANGE UPPER	LOWER	UNITS			CONC. RANGE UPPER	LOWER	UNITS		
A			%	PPM	E			%	PPM	
B			%	PPM	F			%	PPM	
C			%	PPM	G			%	PPM	
D			%	PPM	NONHAZARDOUS MATERIAL			%		

⑩ WASTE PROPERTIES: ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ GAS ☐ OTHER ☐ TOXIC ☐ FLAMMABLE ☐ CORROSIVE IRRITANT ☐ REACTIVE ☐ SENSITIZER ☐ CARCINOGEN/MUTAGEN

⑪ PHYSICAL STATE: ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ GAS ☐ OTHER

⑫ SPECIAL HANDLING INSTRUCTIONS: ☐ GLOVES ☐ GOGGLES ☐ RESPIRATOR ☒ OTHER NONE

GENERATOR CERTIFICATION: THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED & LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION AND THE EPA.

IN THE EVENT OF A SPILL CONTACT THE NATIONAL
RESPONSE CENTER, U. S. COAST GUARD 1-800-424-8802.

⑬

SIGNATURE OF AUTHORIZED AGENT & TITLE

2/24/84

DATE SHIPPED

TRANSPORTER (HAULER MUST COMPLETE)

⑭ NAME CHEMICAL DISPOSAL CO., INC.
EPA NO. A Z T 0 5 0 0 1 0 0 0 8
ADDRESS P.O. DRAWER 397
CITY, STATE, ZIP CODE RILLITO, AZ 85246
PHONE NO. (602) 624-2348

JOB NO. _____
UNIT NO. _____

⑮ PICK-UP DATE _____
TIME _____ AM _____ PM

TSD FACILITY (OPERATOR MUST COMPLETE)

⑰ NAME FLX
EPA NO. 1 1 1 1 1 1 1 1 1 1

⑱ QUANTITY (IF MEASURED) 2.37
⑲ STATE FEE (IF ANY) 47.17

⑳ INDICATE ANY SIGNIFICANT DISCREPANCIES BETWEEN MANIFEST AND SHIPMENT _____

㉑ IF WASTE IS HELD FOR DELIVERY ELSEWHERE, SPECIFY THE DESIGNATED TSD FACILITY _____

NAME _____
EPA NO. _____
REVISED 11/80

㉒ HANDLING OR DISPOSAL METHOD:
☐ SURFACE IMPOUNDMENT ☐ LANDFILL
☐ INJECTION WELL ☐ LAND TREATMENT
☐ TREATMENT (SPECIFY) _____
☐ RECOVERY OR REUSE ☐ STORAGE TRANSFER

P.O. DRAWER 397

RILLITO, ARIZONA 85246

EPA #AZT050010008

STATEMENT DATE

2-26-84

STATEMENT NO.

328

COMMODITY

HAZARDOUS INTER

UNION MANUFACTURING CO. #27

P. O. BOX 760

CHANDLER, AZ. 85224

ATTN: RICHARD HAFFER

ORIGIN: CHANDLER, AZ.

PER LOAD

HAUL DATE	TICKET NO.	CONSIGNEE	DESTINATION	WEIGHT	BASE RATE	SURCHARGE	GROSS RECEIPTS TAX	TOTAL RATE	AMOUNT
2-21	1407	BKK CORP.	WEST COVINA, CA.						1983.00
2-21	1938	BKK CORP.	WEST COVINA, CA.						1983.00
2-21	1944	BKK CORP.	WEST COVINA, CA.						1983.00
2-21	1945	BKK CORP.	WEST COVINA, CA.						1983.00
2-22	1406	BKK CORP.	WEST COVINA, CA.						1983.00
2-24	1400	BKK CORP.	WEST COVINA, CA.						1983.00
2-24	1851	BKK CORP.	WEST COVINA, CA.						1383.00
7 LOADS - CONTAMINATED DIRT/PAINT						TOTAL AMOUNT DUE:			13,281.00

1810-00

NAME/ACCOUNT NO.

002075 CHEMICAL DISPOSAL CO., INC

6021

DATE

03/16/84

INVOICE NO.	INVOICE DATE	AMOUNT	DESCRIPTION	DISCOUNT	NET AMOUNT
328	02/26/84	13,281.00		0.00	13,281.00
				0.00	13,281.00

DETACH STUB BEFORE DEPOSITING - RETAIN VOUCHER FOR YOUR RECORDS



DISBURSEMENT ACCOUNT

P. O. BOX 760

CHANDLER, ARIZONA, U.S.A. 85224

No. 6021

 $\frac{2-77}{710}$

CHECK NO. 6021 DATE 16 MAR 84 EXACTLY *****13,281 DOLLARS AND 00 CENTS

CHECK AMOUNT

*****13,281.00*

PAY TO
THE
ORDER OFCHEMICAL DISPOSAL CO., INC
PO DRAWER 397

RILITO

AZ 85224

THE American National Bank
AND TRUST COMPANY OF CHICAGO
CHICAGO, ILLINOIS 60680

NOT NEGOTIABLE

0006021 0071000770 561851

Union[®] MANUFACTURING INCORPORATED

Subsidiary of MODEL INDUSTRIES, INC



Pima-Chandler Industrial Park
P.O. Box 760, 6625 West Allison Road
Chandler, Arizona 85224
Phone: (602) 961-1022

PURCHASE ORDER NO. 12549

THIS NUMBER MUST APPEAR ON ALL PACKAGES, INVOICES AND B.

ARIZONA BACKHOE SERVICE
4027 S BIRCHETT DR
TEMPE, AZ 85282
ATTN: VAUGHN WIEDER

DATE	SHIP VIA	FOB	DATE SHIPMENT REQUIRED	TERMS	ACCOUNT NO.
2/15/84	N/A	UNION MFG	2/22/84	COD	1810=00
PLEASE ENTER OUR ORDER AS FOLLOWS SUBJECT TO CONDITIONS NAMED ON REVERSE					
QUANTITY	OUR PART #	DESCRIPTION	UNIT PRICE	TOTAL	
One		Item of labor to remove paint contaminated soil from two (2) 45' X 45' areas & one (1) 20' X 20' area. (130 Cu. Yds. Maximum) Excavated material to be loaded in trucks furnished by others.		\$ 1,700.00	
20		Truck loads of soil to be used as fill.			
One		Item of labor to add fill, grade, & compact soil for a distance of 100 Ft. from building. "Scratch" remaining soil with grader on South end of building.			
One		Item of additional labor to excavate 20' X 20' area east of strip tanks. Load additional 30 cubic yards of contaminated soil. Grade as necessary.		700.00	
TOTAL CHARGES:				\$ 2,400.00	

NOTE: Please put our part number on all cartons, packing slips, and invoices. Quantity and part number must be marked on all boxes, failure to do so subject to rejection.

ARIZONA SALES TAX EXEMPTION
NUMBER 07-143541

☒ DOES ☐ DOES NOT APPLY

PFR

Ronald Mottom

NAME/ACCOUNT NO. 000650 ARIZONA BACKHOE SERVICE

DATE 2/23/84

INVOICE NO.	INVOICE DATE	AMOUNT	DESCRIPTION	DISCOUNT	NET AMOUNT
			1810-00		

DETACH STUB BEFORE DEPOSITING - RETAIN VOUCHER FOR YOUR RECORDS

**Union MANUFACTURING INC.**

DISBURSEMENT ACCOUNT

P. O. BOX 760

CHANDLER, ARIZONA, U.S.A. 85224

No. 5873

 $\frac{2-77}{710}$

CHECK NO. 5873 DATE 2/23/84 EXACTLY 2,400 DOLLARS AND 00 CENTS

CHECK AMOUNT

*****2,400.00*****

PAY TO
THE
ORDER OFARIZONA BACKHOE SERVICE
4027 S BIRCHETT DR.
TEMPE, AZ 85282**THE American National Bank**
AND TRUST COMPANY OF CHICAGO
CHICAGO, ILLINOIS 60690*Howard Krueger*

⑈005873⑈ ⑆071000770⑆ 561851⑈

Union Manufacturing, Inc.
Job No. 2174J018

Attachment 2.

Sampling Locations, Boring Logs, Laboratory Analysis, and
Preliminary Reports



INTERNAL WORK SHEETS

Project/Subject

UNION MFG

Job. No.

2213J205

Date

7-15-83

Sheet

of

By

CL PEARSON

BORING + SAMPLE LOCATIONS :

A - 22' S TO SW OF south-eastern most I-beam column in line with east column on south side covering addition to bldg

DOWNGRADIENT A - 21' S TO SW OF BORING A in line with I-beam column

B = 80' S TO SW OF south-eastern most I-beam column in line with east column on south side covering addition to bldg

DOWNGRADIENT E - 30' S TO SW OF BORING E in line with I-beam column

C = 10' \perp from west edge of dock opening

DOWNGRADIENT C - 26' \perp from west edge of dock opening

D = IN CONC BOX 44' N + 28' W OF SW CORNER of bldg. (on west side of bldg)

E = 147' S TO SW \perp from loading dock winter (loading dock @ C = S end of bldg)



INTERNAL WORK SHEETS

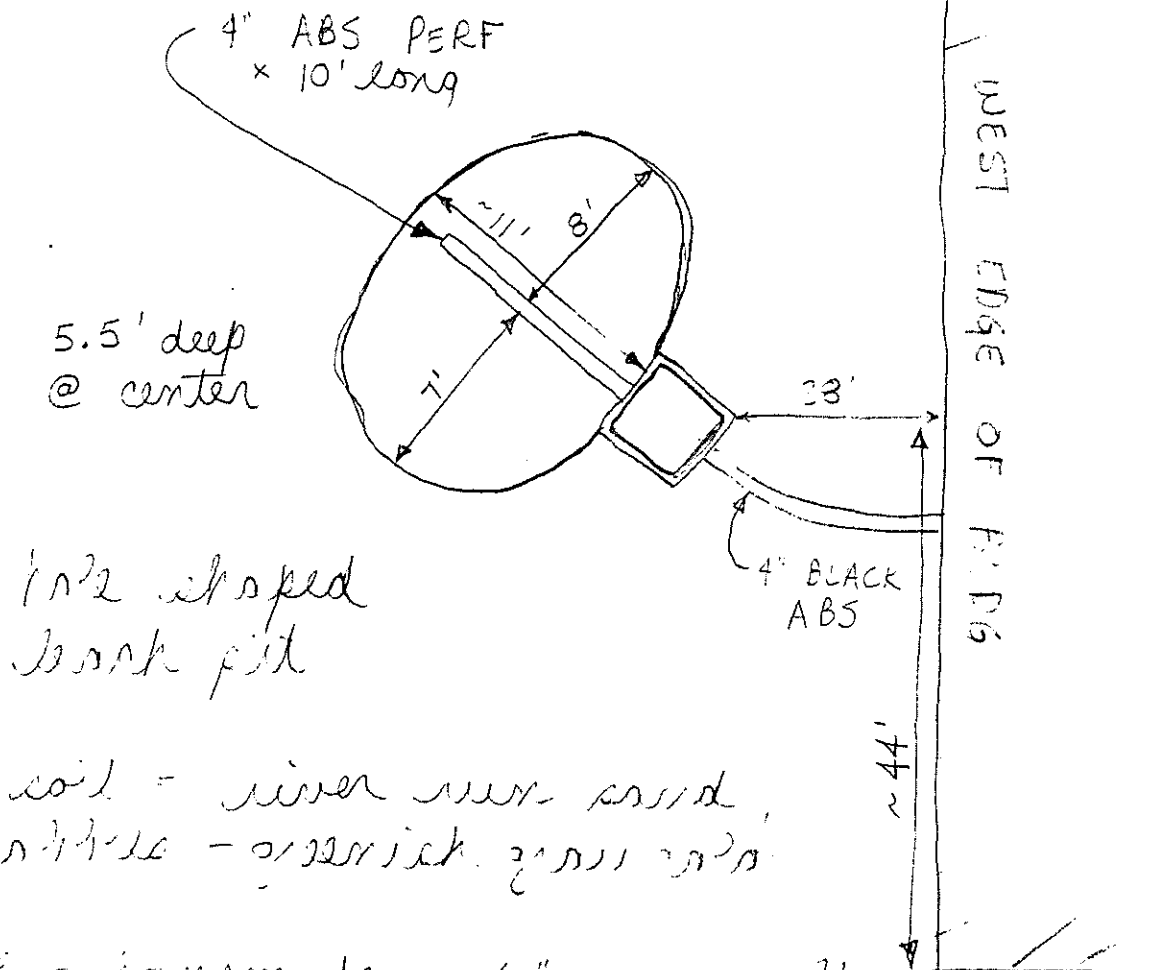
Project/Subject UNION MFG

Job. No. 2213 J205

Date 7-14-83 Sheet of

By CL PEARSON

D. LEACH PIT SITE



- back pit soil - river run sand, gravel + rubble - greenish gray color
- septic tank - homemade - 6" corr. metal - 2'-6" deep w/ septic tank on bottom
- soil under septic tank - green color for sample taken
- greenish gray material in back pit (F-11) for sample taken - roots growing inside perf. pipe



WESTERN TECHNOLOGIES, INC.

INTERNAL WORK SHEETS

Project/Subject

UNION MFG

Job. No. 2213 J 205

Date 7-14-83 Sheet _____ of _____

By CL PEARSON

green soil extends ~18" below concrete box
to depth of ~4' - 2'.

SAMPLES TAKEN:

- ① Material from inside the 4" ABC perf pipe
@ 3' from concrete box
1 - plastic bag sample
1 - small jar
- ② Material from under perf back pipe
@ total depth = 4' ~ 3' under pipe
Sand, Gravel, - rubble material
~ 2' west of concrete box 1 - plastic bag
1 - small jar
- ③ Material from directly under concrete
box green soil - depth @ 3'
~ 6" under box - green soil for
~ 18" under box - black material
caulking down of box
1 - plastic bag + jar
- ④ Material @ 2.5' inside concrete box
1 - plastic bag green + black material
- ⑤ Material chipped from concrete box @ 18"
from top



SOIL BORING DATA

Project Union Manufacturing Boring No. A Job No. 2212J205
 Elev. Top of Hole - Datum - Prepared By CLP Date 7/15/83
 Type/Size of Boring 7" HSA Rig Type CME 75 Driller ME Reviewed By Date

Depth Ft.	Penetration Resistance Blows/Ft.		Sample Type	Dry Density pcf	Moisture Content %	Graphical Log	Description	Soil Classification	Max. Size	Particle Size Distribution %					Grada- tion	Crain Shape	Relative Density	Plas- ticity	Consis- tency	Cemen- tation												
	C	N/R								Boulders	Cobbles	Gravel	Sand	Silt & Clay							Well Sorted	Medium Sorted	Angular Subangular	Subrounded Rounded	Very Loose	Loose	Med. Dense	Dense	Very Dense	None	Low	Medium
1			G		DAMP		Fine Silty - Clayey Sand	SM-	1"	-	-	T	60	40	X	X		X														XX
2		10	R				brown	SC									XX														X	
3																																
4		6	R																													XX
5					SLI.		Fine Sandy - Silty Clay	CL	1"	-	-	-	35	65	X	X					XX		X								X	
6		30	R		DAMP		white & brown																								XX	
7					-PL		clay nodules in soil																								X	
8							moderate cementation																									
9							hard																									
10																																
1		35	R																													
2							STOPPED @ 10'																									
3																																
4							Hole Backfilled																									
5																																
6																																
7																																
8																																
9																																
20																																
1																																
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
30																																

NOTE: THESE DATA REPRESENT CONDITIONS AT THE LOCATION ON THE DATE THE FIELD WORK WAS PERFORMED AND SHOULD NOT BE INFERRED TO REPRESENT OTHER LOCATIONS OR DATES. SUCH DATA HAVE BEEN OBTAINED EXCLUSIVELY FOR DESIGN PURPOSES AND SHOULD NOT BE CONSTRUED AS PART OF THE CONSTRUCTION PLANS OR AS DEFINING CONSTRUCTION TECHNIQUE.

GROUNDWATER CONDITIONS

Date 7-15-83 No Groundwater Encountered X
 Date Time Depth
 Date Time Depth

SOIL BORING DATA

Project Union Manufacturing Boring No. Down - A Job No. 2213J205

Elev. Top of Hole - Datum - Prepared By CLP Date 7-15-83

Type/Size of Boring - Rig Type Shovel Driller - Reviewed By - Date -

Depth Ft.	Penetration Resistance Blows/Ft.		Sample Type	Dry Density pcf	Moisture Content %	Graphical Log	Description	Soil Classification	Max. Size	Particle Size Distribution %					Grada- tion	Grain Shape	Relative Density	Plas- ticity	Consis- tency	Cemen- tation
	C	N/R								Boulders	Cobbles	Gravel	Sand	Silt & Clay						
1			G		SLI.		Silty Sand - Brown	SM	1/2"	-	-	T	70	30	xxx	x		xxxxx		x
2					DAMP															
3																				
4							Sample From 2"-4"													
5																				
6							Stopped @ 4"													
7																				
8							Hole Backfilled													
9																				
10																				
1																				
2																				
3																				
4																				
5																				
6																				
7																				
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9																				
30																				

NOTE: THESE DATA REPRESENT CONDITIONS AT THE LOCATION ON THE DATE THE FIELD WORK WAS PERFORMED AND SHOULD NOT BE INFERRED TO REPRESENT OTHER LOCATIONS OR DATES. SUCH DATA HAVE BEEN OBTAINED EXCLUSIVELY FOR DESIGN PURPOSES AND SHOULD NOT BE CONSTRUED AS PART OF THE CONSTRUCTION PLANS OR AS DEFINING CONSTRUCTION TECHNIQUE.

GROUNDWATER CONDITIONS

Date 7-15-83 No Groundwater Encountered X

Date - Time - Depth -

Date - Time - Depth -

SOIL BORING DATA

Project Union Manufacturing Boring No. Down - B Job No. 2213J205

Elev. Top of Hole - Datum - Prepared By CLP Date 7-15-83

Type/Size of Boring - Rig Type Shovel Driller CLP Reviewed By - Date -

Depth Ft.	Penetration Resistance Blows/Ft.		Sample Type	Dry Density pcf	Moisture Content %	Graphical Log	Description	Soil Classification	Max. Size	Particle Size Distribution %					Grada- tion	Grain Shape	Relative Density	Plas- ticity	Consis- tency	Cemen- tation
	C	N/R								Boulders	Cobbles	Gravel	Sand	Silt & Clay						
1			G		SLI.		Fine Silty-Clayey sand	SM	1/4"	-	-	-	60	40	X	X	X	X	X	
2					DAMP		light brown													
3																				
4																				
5							Sample 2" - 4"													
6																				
7							Stopped @ 4"													
8																				
9																				
10																				
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
20																				
1																				
2																				
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NOTE: THESE DATA REPRESENT CONDITIONS AT THE LOCATION ON THE DATE THE FIELD WORK WAS PERFORMED AND SHOULD NOT BE INFERRED TO REPRESENT OTHER LOCATIONS OR DATES. SUCH DATA HAVE BEEN OBTAINED EXCLUSIVELY FOR DESIGN PURPOSES AND SHOULD NOT BE CONSTRUED AS PART OF THE CONSTRUCTION PLANS OR AS DEFINING CONSTRUCTION TECHNIQUE.

GROUNDWATER CONDITIONS

Date 7-15-83 No Groundwater Encountered X

Date - Time - Depth -

Date - Time - Depth -

SOIL BORING DATA

Project Union Manufacturing Boring No. B Job No. 2213J205
 Elev. Top of Hole - Datum - Prepared By CLP Date 7-15-83
 Type/Size of Boring 7" HSA Rig Type CME 75 Driller ME Reviewed By Date

Depth Ft.	Penetration Resistance Blows/Ft.		Sample Type	Dry Density pcf	Moisture Content %	Graphical Log	Description	Soil Classification	Max. Size	Particle Size Distribution %					Grada-tion	Grain Shape	Relative Density	Plas-ticity	Consis-tency	Cemen-tation																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	C	N/R								Boulders	Cobbles	Gravel	Sand	Silt & Clay							Well-Medium	Angular	Subangular	Subrounded	Very Loose	Loose	Med. Dense	Dense	Very Dense	None	Low	Medium	High	Soft	Firm	Stiff	Very Stiff	Hard	None	Light	Moderate	Heavy																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
1			G		SLI.		Fine Silty - Sandy Clay -	CL	1/2"	-	-	-	30	70	X	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

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GROUNDWATER CONDITIONS

Date 7-15-83 No Groundwater Encountered X
 Date Time Depth
 Date Time Depth

SOIL BORING DATA

Project Union Manufacturing Boring No. C Job No. 2213J205
 Elev. Top of Hole - Datum - Prepared By CLP Date 7-15-83
 Type/Size of Boring 7" HSA Rig Type CME 75 Driller ME Reviewed By Date

Depth Ft.	Penetration Resistance Blows/Ft.		Sample Type	Dry Density pcf	Moisture Content %	Graphical Log	Description	Soil Classification	Max. Size	Particle Size Distribution %					Grada- tion	Grain Shape	Relative Density	Plas- ticity	Consis- tency	Cemen- tation														
	C	N/R								Boulders	Cobbles	Gravel	Sand	Silt & Clay							Well- Sorted	Medium- Sorted	Angular	Subangular	Subrounded	Rounded	Very Loose	Loose	Med. Dense	Dense	Very Dense	None	Low	Medium
1			G		MOIST		Clayey Sand - Black & Odiferous	SC	1"	-	-	T	60	40	XX	X	XX	X																
2		8	N		DAMP		Fine Silty - Sandy Clay - Brown & odiferous	CL	1/2"	-	-	-	35	65	X	X		XX	XX															
3																																		
4		14	N																															
5																																		
6		24	N																															
7																																		
8																																		
9					SIL. DAMP		- white & brown			-	-	-	25	75	X	X		XX	X															
10		31	N																															
1																																		
2																																		
3					DAMP	TO	odiferous																											
4					MOIST																													
5																																		
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9																																		
30							slightly odiferous																											

30 N Stopped @ 31'

NOTE: THESE DATA REPRESENT CONDITIONS AT THE LOCATION ON THE DATE THE FIELD WORK WAS PERFORMED AND SHOULD NOT BE INFERRED TO REPRESENT OTHER LOCATIONS OR DATES. SUCH DATA HAVE BEEN OBTAINED EXCLUSIVELY FOR DESIGN PURPOSES AND SHOULD NOT BE CONSTRUED AS PART OF THE CONSTRUCTION PLANS OR AS DEFINING CONSTRUCTION TECHNIQUE.

GROUNDWATER CONDITIONS

Date 7-15-83 No Groundwater Encountered X
 Date Time Depth
 Date Time Depth

SOIL BORING DATA

Project Union Manufacturing Boring No. Down - C Job No. 2213J205
 Elev. Top of Hole - Datum - Prepared By CLP Date 7-15-83
 Type/Size of Boring - Rig Type Shovel Driller CLP Reviewed By - Date -

Depth Ft.	Penetration Resistance Blows/Ft.		Sample Type	Dry Density pcf	Moisture Content %	Graphical Log	Description	Soil Classification	Max. Size	Particle Size Distribution %				Grada- tion	Grain Shape	Relative Density	Plas- ticity	Consis- tency	Cemen- tation																			
	C	N/R								Boulders	Cobbles	Gravel	Sand							Silt & Clay																		
1			G	SLI.	DAMP		Clayey Sand - Light Brown	SC	1"	-	-	T	70	30	X	X	X	X																			X	
2																																						
3							Sampled from 2" - 4"																															
4							Stopped @ 4"																															
5																																						
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GROUNDWATER CONDITIONS

Date 7-15-83 No Groundwater Encountered X
 Date - Time - Depth -
 Date - Time - Depth -

SOIL BORING DATA

Project Union Manufacturing Boring No. D Job No. 2213J205
 Elev. Top of Hole - Datum - Prepared By CLP Date 7-15-83
 Type/Size of Boring 7" HSA Rig Type CME 75 Driller ME Reviewed By Date

Depth Ft.	Penetration Resistance Blows/Ft.		Sample Type	Dry Density pcf	Moisture Content %	Graphical Log	Description	Soil Classification	Max. Size	Particle Size Distribution %					Gradation	Grain Shape	Relative Density			Plasticity	Consistency		Cementation
	C	N/R								Boulders	Cobbles	Gravel	Sand	Silt & Clay			Very Loose	Med. Dense	Very Dense		Low	High	
1			G		SLI.		Powdery Green & Black Material																
2		22	N		DAMP																		
3																							
4		81	N																				
5					DAMP		Silty - Sandy Clay - Brown	CL	1"	-	-	-	30	70	x	x				xxx	x		x
6																							
7																							
8							- Brown & White																xx
9																							
10																							x
1		32	N				Stopped @ 10'																
2							hole backfilled																
3																							
4																							
5																							
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GROUNDWATER CONDITIONS

Date 7-15-83 No Groundwater Encountered x
 Date Time Depth
 Date Time Depth

Union Manufacturing Inc.
6625 West Allison Road
Chandler, Arizona 85224

18 August 1983

Attn: Mark J. Gohlman

Re: Preliminary Report
Phase I Sampling and Analysis
Surface Impoundment and
Land Disposal Areas
Chandler Plant
EPA ID No. AZ088301213

Ref. Partial Closure Plan of May 23, 1983

Job No. 2213J205

Preliminary results are attached for analysis of surface and sub-surface samples collected in Phase I of the Partial Closure Plan.

The concrete lined tank for washer rinsate (Area D) in the EPA inspection report by Karen O'Regan appears to be a "homemade" septic tank and leach field. Extractable chromium was not found at any of the test locations in Area D, given in a copy of the field log.

Lead in surface samples in the paint stripping sludge disposal Area A, at 10.7 ppm, and in the overflow Area B, at 87 ppm, exceed the E P Toxicity limit of 5 ppm for lead. The solvents xylene and toluene were detected in the surface sample below the paint loading dock, but not in samples at 10 and 30 foot depths, or in other areas. Phenol tests are in progress at this writing.

Respectfully

WESTERN TECHNOLOGIES, INC.


Peter F. Allard, P.E.
Chief Chemical Engineer



Union Manufacturing Inc.
Job No. 2213J205

<u>Area and Location</u>	<u>Lead (ppm)</u>	<u>Chromium (ppm)</u>	<u>pH</u>	<u>Methylene Chloride (ppm)</u>	<u>Xylene (ppm)</u>	<u>Toluene (ppm)</u>	<u>Butanol (ppm)</u>
A Surface	10.7	0.79	10.2	<10	NT	NT	NT
A (1-2')	<0.1	<0.1	9.9	<10	NT	NT	NT
A Downgradient	<0.1	<0.1	10.1	<10	NT	NT	NT
B Surface	87.	4.3	10.5	<10	NT	NT	NT
B (5-6.5')	2.6	0.47	9.6	<10	NT	NT	NT
B Downgradient	<0.1	<0.1	8.5	<10	NT	NT	NT
C Surface	2.3	0.19	NT	NT	9.7	3.4	<1
C (10-11.5')	<0.1	0.31	NT	NT	<1	<1	<1
C (30-31.5')	<0.1	<0.1	NT	NT	<1	<1	<1
C Downgradient	<0.1	<0.1	NT	NT	<1	<1	<1
D Surface		<0.1	6.6	NT	NT	NT	NT
D (5-6.5'), center of concrete box		<0.1		NT	NT	NT	NT
D In 4" perf ABS, 5' from concrete		<0.1	6.2	NT	NT	NT	NT
D 4', 3' under pipe, 2' W concrete box		<0.1		NT	NT	NT	NT
D Matl under concrete box		<0.1	7.1	NT	NT	NT	NT
D Concrete Chipped from box		<0.1		NT	NT	NT	NT

- Notes: 1. ppm = parts per million
2. NT = Not Tested
3. < = less than



INTERNAL WORK SHEETS

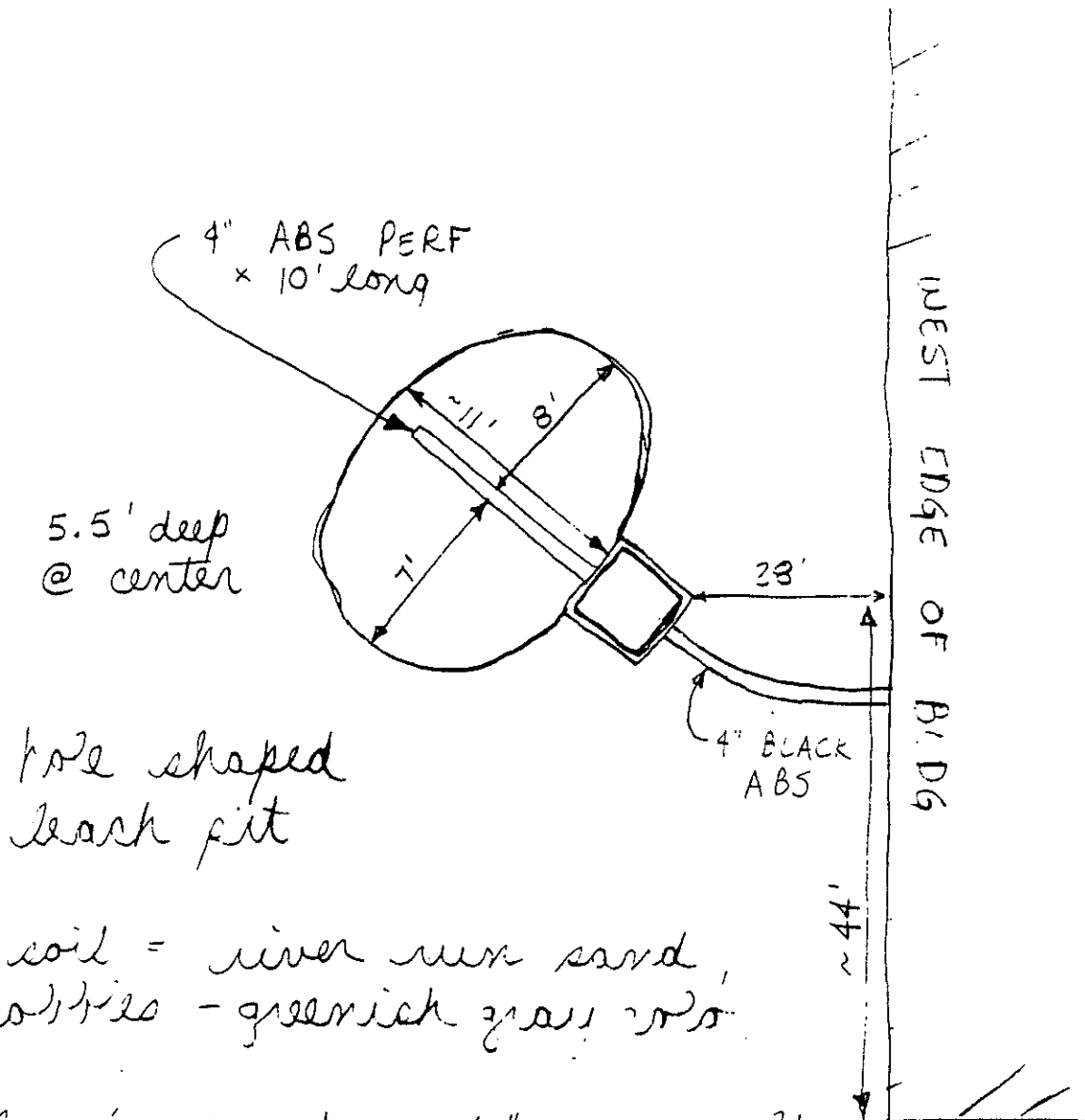
Project/Subject UNION

Job. No. 2213 J205

Date 7-14-83 Sheet of

By CL PEARSON

D. LEACH PIT SITE



- leach pit soil = river run sand, gravel + cobbles - greenish gray color
- septic tank - homemade - 6" corr walls ~ 2'-6" deep w/ septrate on bottom
- soil under septic tank - green color for sample taken
- greenish gray material in leach pipe (4" PERF) for sample taken - roots growing inside corr. pipe

INTERNAL WORK SHEETS

Project/Subject

UNION MFG

Job. No. 2213 J 205

Date 7-14-83 Sheet _____ of _____

By CL PEARSON

Green soil extends ~18" below concrete box
to depth of ~4' - 2".

SAMPLES TAKEN:

- ① Material from inside the 4" ABS Perf pipe
@ 5' from concrete box
1 - plastic bag sample
1 - small jar
- ② Material from under perf beach pipe
@ total depth = 4' ~ 3' under pipe
Sand, Gravel, + cobble material
~ 2' west of concrete box 1 - plastic bag
1 - small jar
- ③ Material from directly under conc
box - green soil - depth @ 3'
~ 6" under box - green soil for
~ 18" under box - Taken from
south edge of box
1 - plastic bag + jar
- ④ Material @ 2.5' inside conc box
1 - plastic bag green + black material
- ⑤ Material chipped from conc box @ 18"
from top



Union Manufacturing
6625 West Allison Road
Chandler, Arizona 85224

5 December 1983

Attn: Mark J. Gohlmann
Purchasing Agent

Re: Preliminary Report No. 2
Phase I Sampling and Analysis
Surface Impoundment and Land
Disposal Areas
Chandler Plant
EPA ID No. AZ088301213

Job No. 2213J205

Ref: 1. Partial Closure Plan of May 23, 1983
2. Preliminary Report No. 1, August 18, 1983

In accordance with your request, further laboratory tests were performed on Phase I soil samples to further define the boundaries of hazardous waste contamination at your Chandler plant:

<u>Area and Location</u>	<u>Lead (ppm)</u>	<u>Xylene (ppm)</u>	<u>Toluene (ppm)</u>
B (1-2.5 ft)	<0.1	-	-
B (3-4.5 ft)	<0.1	-	-
C (1-2.5 ft)	-	<1	<1
C (3-4.5 ft)	-	<1	<1

A soil analysis summary is attached which includes a listing of chemical tests performed to date on soil samples from plant areas of potential hazardous waste contamination. The results indicate that hazardous waste contamination in Areas A, B, and C is above the 1 to 2.5 ft. level for the parameters and locations tested.

Respectfully,
WESTERN TECHNOLOGIES INC.


Peter F. Allard, P.E.
Chief Chemical Engineer

Copies: Model Industries (1)
Addressee (1)



Union Manufacturing Inc.
Job No. 2213J205
Preliminary Report No. 2

Area and Location	Phenol (ppm)	Lead (ppm)	Chromium (ppm)	pH	Methylene Chloride (ppm)	Xylene (ppm)	Toluene (ppm)	Butanol (ppm)
A Surface		10.7	0.79	10.2	<10	NT	NT	NT
A (1-2')	<0.5	<0.1	<0.1	9.9	<10	NT	NT	NT
A Downgradient		<0.1	<0.1	10.1	<10	NT	NT	NT
B Surface		87.	4.3	10.5	<10	NT	NT	NT
B (1-2.5')		<0.1	NT	NT	NT	NT	NT	NT
B (3-4.5')		<0.1	NT	NT	NT	NT	NT	NT
B (5-6.5')	<0.5	2.6	0.47	9.6	<10	NT	NT	NT
B Downgradient		<0.1	<0.1	8.5	<10	NT	NT	NT
C Surface		2.3	0.19	NT	NT	9.7	3.4	<1.
C (1-2.5')		NT	NT	NT	NT	<1.	<1.	NT
C (3-4.5')		NT	NT	NT	NT	<1.	<1.	NT
C (10-11.5')		<0.1	0.31	NT	NT	<1.	<1.	<1.
C (30-31.5')		<0.1	<0.1	NT	NT	<1.	<1.	<1.
C Downgradient		<0.1	<0.1	NT	NT	<1.	<1.	<1.
D Surface			<0.1	6.6	NT	NT	NT	NT
D (5-6.5'), center of concrete box			<0.1		NT	NT	NT	NT
D In 4" perf ABS, 5' from concrete			<0.1	6.2	NT	NT	NT	NT
D 4', 3' under pipe, 2' W concrete box			<0.1		NT	NT	NT	NT
D Matl under concrete box			<0.1	7.1	NT	NT	NT	NT
D Concrete Chipped from box			<0.1		NT	NT	NT	NT

Notes: 1. ppm = parts per million
2. NT = Not Tested
3. < = less than



LABORATORY REPORT

Client Union Manufacturing

Job No. 2174J018

Lab/Invoice No.

Date of Report 3/28/84

Project Closure

Location S E of corner of tank slab, area A

Material/Specimen Soil Sampled By WTI/Allard Date 2/22/84

Source Department 217 Submitted By WTI/Allard Date 2/22/84

Test Procedure See below Authorized By UM/C. Siemien Date 2/22/84

RESULTS

The sample submitted was extracted overnight following the procedure outlined by the EPA in the SW-846 manual. The sample was also acid digested for the total iron analysis. Metals were run on an inductively-coupled plasma emission spectrophotometer. Results follow.

Parameter	Concentration	Method
Lead (mg/L)	0.20	EP Toxicity Test EPA 200.7
Chromium (mg/L)	0.30	EP Toxicity Test EPA 200.7
Total Iron (mg/kg)	11,400.	EPA 200.7
pH (Units)	10.3	EPA 150.1

Copies to Client (1)

Analyst:

Lisa C. Lund, Chemist

Reviewed by:

R. Alan Dougherty, Ph.D.



Union Manufacturing, Inc.
Job No. 2174J018

Attachment 3.

Field Engineer Reports of Site Observations During Closure



1. February 22, 1984

10:05 to 11:34 a.m.

Claude Siemien, Manufacturing Manager and Richard Hafer of Union Manufacturing were on site directing the excavation and removal of contaminated soil in Areas A, B, and C. Soil removal was observed at Areas A and B by a backhoe and grader operated by personnel by personnel from Arizona Backhoe Service, Tempe, Arizona. Removed soil was temporarily stockpiled in Area B before loading on haul trucks.

At Area C (Paint Loading Dock), railroad tracks had been removed and excavation was continuing by shovel and wheelbarrow. This location is near building walls, foundations, and utilities.

A purple discoloration was observed in soil removed from Area A, starting 2 ft. below grade at a location 15 ft. East and 8 ft. South of the Southeast corner of the slab floor area behind the plant building. A sample of the discolored soil was obtained for laboratory analysis. The discoloration appeared to be caused by pigment from stripped paint. It was decided by Union Manufacturing to remove all of the visibly discolored purple soil as a hazardous waste. The backhoe was used to expose the extent of the discolored area. Approximately 30 tons of discolored soil were removed, as reported by Union Manufacturing, in addition to the quantity planned for Area A.

Photographs are included in Attachment 4.



Union Manufacturing, Inc.
Job No. 2174J018

2. February 24, 1984

1:15 to 1:30 a.m.

A return trip was made to observe site conditions after completion of closure activities. The additional waste from the purple discolored soil in Area A increased the total soil removed to more than could be hauled on February 22. Haulage trips were made on February 23 and 24 to complete removal of contaminated soils from the plant site.

The site was regraded to eliminate the unpaved road which had also acted as a berm between Areas A and B. The railroad tracks were not replaced at the Paint Loading Dock when Area C was regraded. Area D, which was found to be the location of an old septic tank and leach field, was backfilled and regraded.

Photographs are included in Attachment 4.



Union Manufacturing, Inc.
Job No. 2174J018

Attachment 4.

Photo Summary



Union Manufacturing, Inc.
Job No. 2174J018



Photo 1. Area A Before Closure.



Photo 2.
Boring Location at Center
of Area A.



Union Manufacturing, Inc.
Job No. 2174J018



Photo 3. Soil Removal at Area A.



Photo 4. Removal of Discolored Soil at Area A.



Photo 5. View of Discolored Soil at Area A.



Photo 6. Closer View of Discolored Soil at Area A.



Photo 7. Temporary Stockpile of Soil Removed from Areas A & B.



Photo 8. View of Area A after Closure Activities.

Union Manufacturing, Inc.
Job No. 2174J018



Photo 9.
View of Area A after
Closure Activities.



Photo 10. East Portion of Area B before Closure.



Union Manufacturing, Inc.
Job No. 2174J018



Photo 11.

Boring Location at Center
of Area B. Note Drain
Pipe between Areas A & B,
Visible at Area B Fence.



Photo 12. View of Drain Pipe at Outlet to Area B,



Union Manufacturing, Inc.
Job No. 2174J018

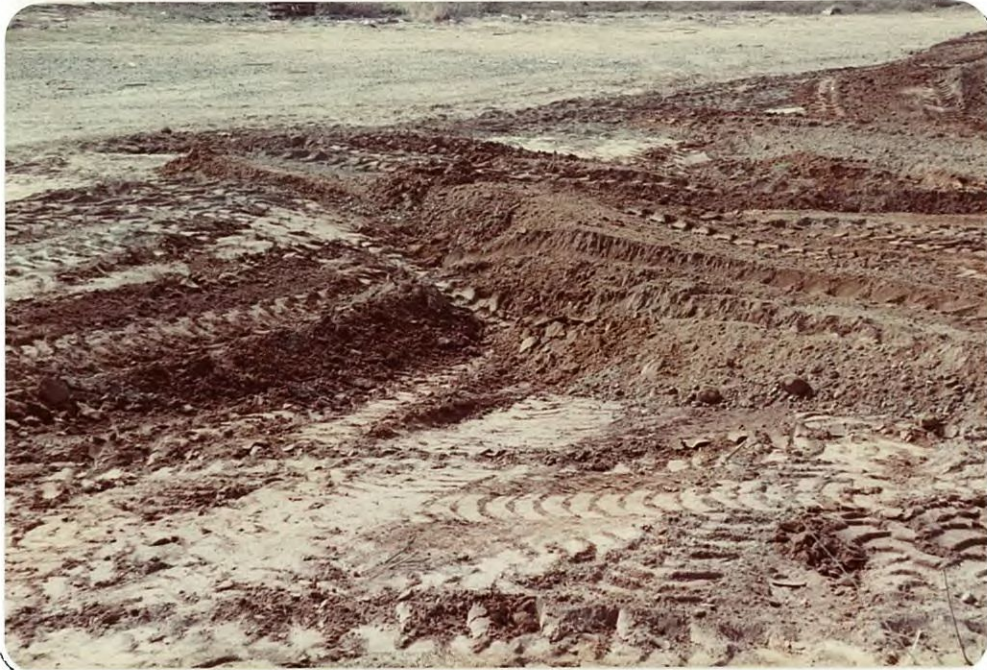


Photo 13. Area B during Soil Removal



Photo 14. Area B. after Regrading.

Union Manufacturing, Inc.
Job No. 2174J018



Photo 15. Area B after Regrading (Portion Southwest of Photo 14 View)



Photo 16. Area B after Closure



Photo 17. Area C Before Closure.



Photo 18. Area C Boring Location with View of Drilling Operations.

Union Manufacturing, Inc.
Job No. 2174J018



Photo 19. Area C during Soil Removal. Note Removal of Railroad Tracks Near Loading Dock.



Photo 20. Area C After Closure.

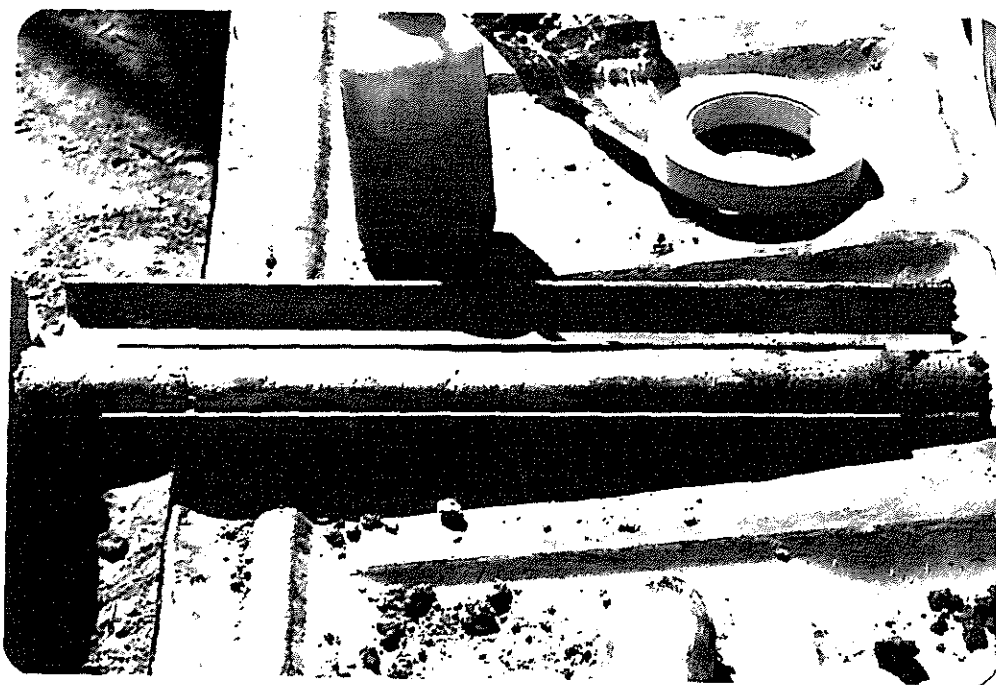


Photo 21. View of Split-Spoon Sampler During Retrieval of Soil Sample at Area C.

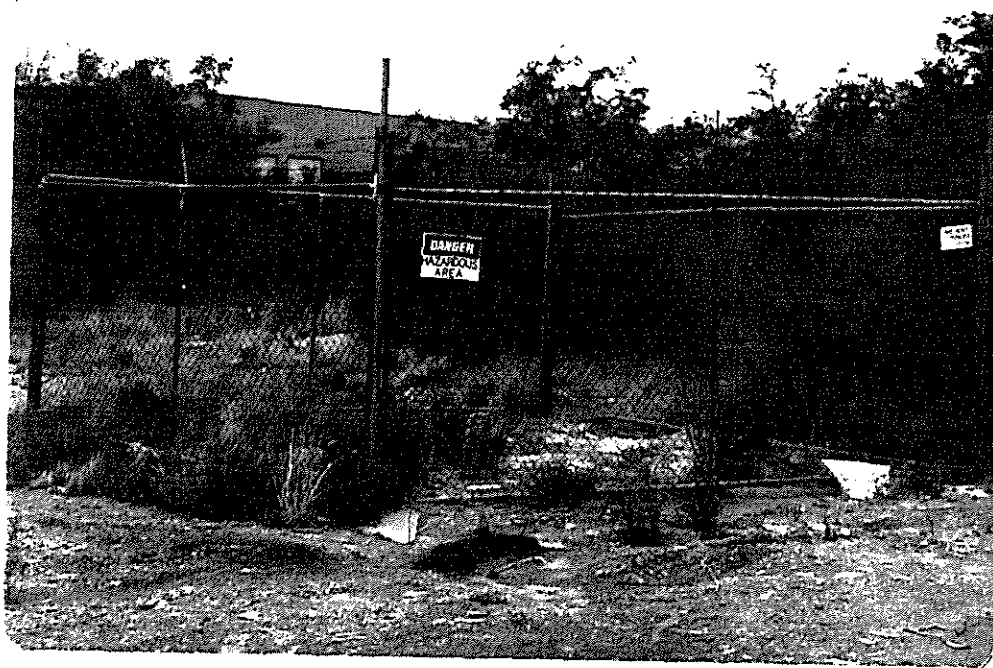


Photo 22. Area D Before Closure.

Union Manufacturing, Inc.
Job No. 2174J018

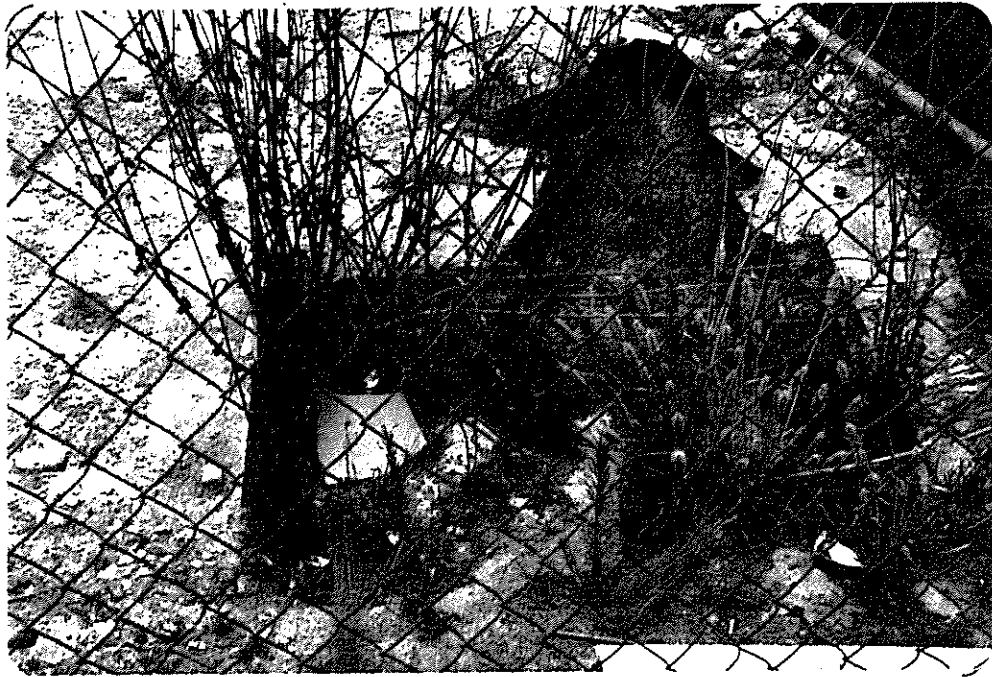


Photo 23. Concrete "Tank" at Area D Before Closure



Photo 24. Excavation Around Concrete Tank at Area D.



Photo 25. Inside Bottom of Concrete Tank at Area D.



Photo 26. View of Cobbles in Leach Field Near Concrete Tank at Area D



Photo 27. Closer View of Cobbles Near Concrete Tank at Area D.



Photo 28. Solid Material in ABS Perforated Pipe from Concrete Tank at Area D.

Union Manufacturing, Inc.
Job No. 2174J018



Photo 29. Area D After Backfill.

Union Manufacturing, Inc.
Job No. 2174J018

Attachment 5.

Partial Closure Plan Surface Impoundment and Land Disposal Areas,
Chandler Plant



Partial Closure Plan
Surface Impoundment and
Land Disposal Areas
Chandler Plant
EPA ID No. AZ088301213
for
Union Manufacturing, Inc.
Job No. 2583J070



**WESTERN
TECHNOLOGIES
INC.**

Phoenix

3737 East Broadway Road
P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

Flagstaff

2400 East Huntington Drive
Flagstaff, Arizona 86001
(602) 774-8708

Tucson

423 South Olsen Avenue
Tucson, Arizona 85719
(602) 624-8894

Farmington

400 South Lorena Avenue
Farmington, New Mexico 87401
(505) 327-4966

Las Vegas

300 West Boston Avenue
Las Vegas, Nevada 89102
(702) 382-7483

Grand Junction

3184 Mesa Avenue
Grand Junction, Colorado 81504
(303) 434-9873



**WESTERN
TECHNOLOGIES
INC.**

3737 East Broadway Road
P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

Union Manufacturing, Inc.
6625 West Allison Road
Chandler, Arizona 85224

May 23, 1983

Attn: Mr. Mark J. Gohlmann, Purchasing Agent

Re: Partial Closure Plan
Surface Impoundment and Land Disposal Areas
Chandler Plant
EPA ID No. AZ088301213

Job No. 2583J070

A partial closure plan is attached for closure of surface impoundment and landfill areas at your Chandler plant, which is required to satisfy requirements of 40 CFR 265.112 and 265.142 under the Resources Conservation and Recovery Act.

Supplemental information on relevant plant materials and conditions is also enclosed in support of the plan.

Respectfully submitted,
WESTERN TECHNOLOGIES, INC.


Peter F. Allard, P.E.
Chief Chemical Engineer

nj

Attachments

Copies to: Addressee (3)
Model Industries, Inc/Attn: Mr. Claude Siemien (1)

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COVER LETTER

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4. Analysis of Samples - Phase 1
5. Review of Phase 1 Results
6. Removal of Soils and Residues from Contaminated Locations
7. Maximum Waste Inventory
8. Field Observation of Sampling, Waste Removal and Decontamination
9. Post-Closure
10. Closure Schedule
11. Closure Cost Estimate

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ANTICIPATED SOILS CONDITIONS

PRELIMINARY ANALYSIS OF SURFACE SAMPLES

APPENDIX

1. Regulatory Requirements
2. EPA Region IX Investigation Report No. R(83) E006
3. RCRA Interim Status Groundwater Monitoring Inspection Report
4. Materials Data Sheets
5. Preliminary Analysis of Surface Samples



INTRODUCTION

A closure plan for surface impoundment and land disposal areas at Union Manufacturing, Inc., 6625 West Allison Road, Chandler, Arizona 85224 is attached, as required by par. IV-1 in the Consent Agreement (Docket No. 9-83 RCRA6) issue by the U. S. Environmental Protection Agency, Region IX, San Francisco. The intent of the plan is to satisfy the requirements of 40 CFR 265.112 and 265.142, copies of which are attached in Appendix 1, by removal and disposal of wastes defined as hazardous by sampling and analysis.

The areas to be closed are understood to be the four locations observed in a site visit of December 1, 1982 by EPA Investigator Karen O'Regan, as given in her Report No. R(83) E006. The locations are

- A. Paint stripping sludge disposal area
- B. Overflow area from location A
- C. Area below paint storage loading dock
- D. Concrete lined tank for washer rinsate

Additional information on these areas is given in Appendix 3 in the RCRA Interim Status Ground-Water Monitoring Inspection Report of July 23, 1982 by Bill Porter, USEPA Contractor.



CLOSURE PLAN

1. General

A closure plan is presented below for three land disposal areas and a surface impoundment at Union Manufacturing, Inc., 6625 West Allison Road, Chandler, Arizona. The purposes of the activities proposed in the closure plan is to satisfy requirements of 40 CFR 265.112 and 265.142.

The areas to be closed are given in EPA Investigation Report No. R(83) E006 as shown in the attached sketch. The general approach of the closure plan is to define the areas and depths of contamination by hazardous wastes and residues by sampling and analysis; to remove contaminated soils and residues; and to transport hazardous wastes to appropriate disposal facilities. The closure areas are:

- A. Paint striping sludge land disposal area used until April 1981 until elimination of process
- B. Overflow from location A
- C. Area below loading dock where paint drums were dumped in an incident during mid-1981.
- D. Concrete lined tank for washer rinsate until January 1981 when tank use was discontinued.

2. Hazardous Wastes Anticipated

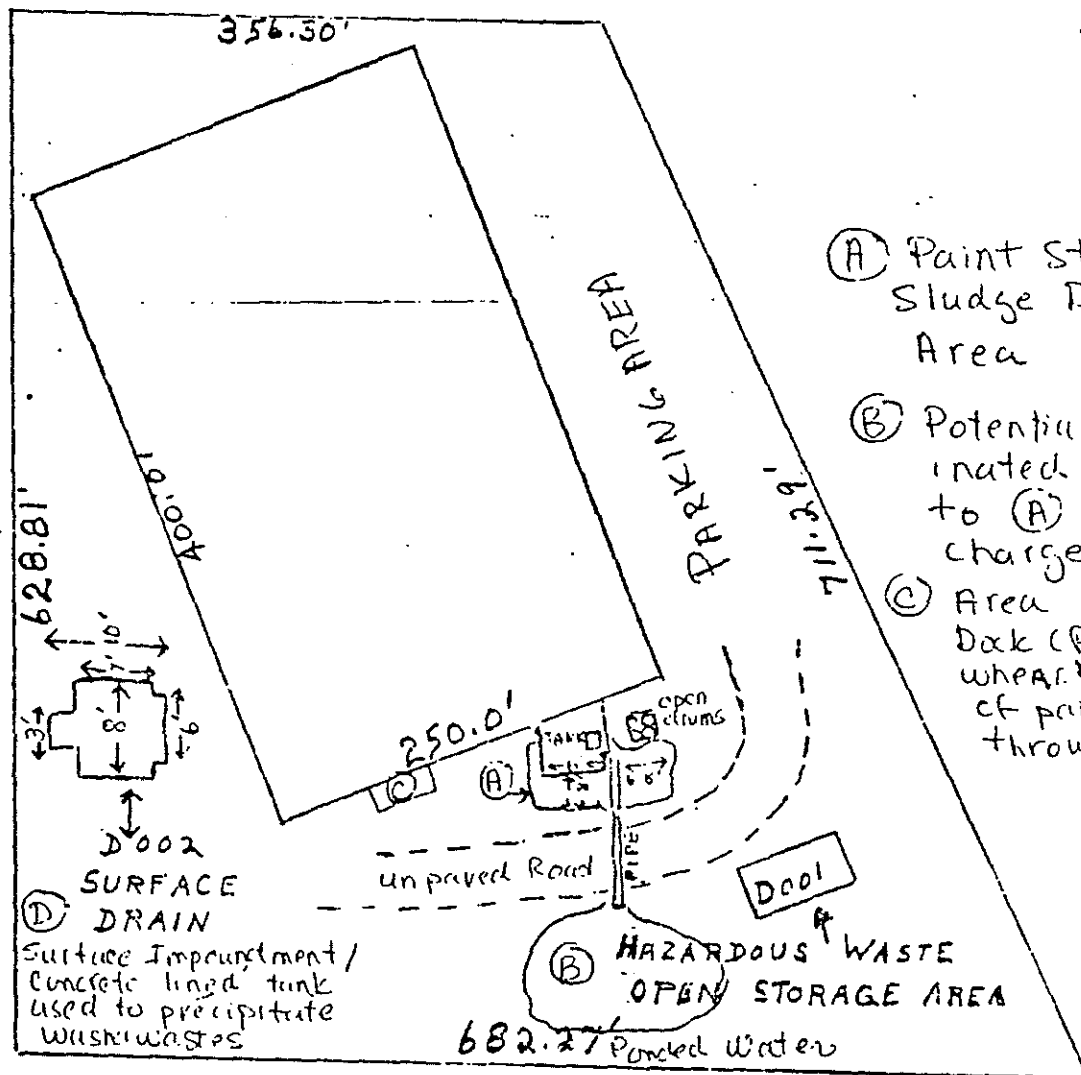
A list of potential hazardous substances which may be present at the areas to be closed, based on a review of material data sheets for paint and chemicals used at the plant, is given in Table 1. A preliminary report is presented in Appendix 5 showing lead, phenol, pH, flash point, perchloroethylene, and methylene chloride analysis of surface samples.



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FACILITY LOCATED ON THE GILA RIVER INDIAN RESERVATION INDUSTRIAL PARK.
 PRIMARILY SURROUNDED BY DESERT WITH SOME AGRICULTURE.
 AREA-FLAT.

Investigator has added waste areas
 (A), (B), (C), (D) to facility diagram per
 Facility Representative's information.



Scale - 1" = 120'

Table 1. Potential Hazardous Substances

Source	Substance	Hazardous Waste No.	Hazard Code	Comments
Paint	Lead Chromate	D007,8	Toxic	May provide ex- tractable lead, chromium
	Molybdate Orange	D007,8	Toxic	May provide extractable lead, chromium, molybdenum
	Butanol	U031	Ignitable	
	Napthas	D001	Ignitable	Other ignitable solvents may be present
	Xylene	U239	Toxic	
	Toluene	U220	Toxic	
Paint Strippers	Methylene Chloride	Not listed	Ignitable	Hazardous combustion products
	Phenol	U188	Toxic	
	Caustic Stripper	Not listed	Corrosive	Expect potassium Hydroxide
Washer	Morpholine Phosphate	Not listed	Ignitable	
	Chromic Acid	D007	Toxic, Corrosive, Reactive	pH of 3.5 to 5 at working concen- trations is not corrosive



The paint and paint stripping sludge wastes at locations A, B and C are expected to be shallow with relatively low short term mobility under the anticipated soil conditions. The clay layers anticipated at 6 to 8 feet and below are expected to be of low permeability to water and to possible solvents.

The concrete tank structure may have absorbed or been contaminated by chromic acid.

3. Sampling Plan - Phase 1

3.1 Areas and sample locations will be sketched by field engineer.

3.2 Paint stripping sludge disposal area

3.2.1 Surface samples

1. At center of apparent contaminated area
2. At location 1 foot beyond apparent contaminated area

3.2.2 Subsurface samples, 4" auger

1. At 1, 3, 5 and 10 foot depths
2. Observe and record color and odor of soils during drilling
3. Collect additional sample when color and odor reach normal soil condition, if 1 foot sample exhibits color and odor.

3.3 Overflow from paint stripping sludge disposal

3.3.1 Surface samples

1. At center of apparent contaminated area
2. At location 1 foot beyond apparent contaminated area



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3.3.2 Subsurface samples, 4" auger

1. At 1, 3, 5 and 10 foot depths
2. Observe and record color and odor of soils during drilling
3. Collect additional sample when color and odor reach normal soil condition, if 1 foot sample exhibits color and odor.

3.4 Below paint storage loading dock

3.4.1 Surface samples

1. At center of apparent contaminated area
2. At location 1 foot beyond apparent contaminated area

3.4.2 Subsurface samples, 4" auger

1. At 1, 3, 5 and 10 foot depths
2. Observe and record color and odor of soils during drilling
3. Collect additional sample when color and odor reach normal soil condition, if 1 foot sample exhibits color and odor.

3.5 Concrete lined tank for washer rinsate

3.5.1 Concrete samples

1. Exposed 2' wide area of one side and the bottom of the concrete tank by removing soil with a backhoe.
2. Examine concrete for visible deterioration or possible residue of hazardous waste.
3. If residue or deterioration are not observed, collect concrete samples from side and bottom of tank.
4. If residue is observed, document location and sample residue.
5. If deterioration is observed sample concrete in deteriorated areas at one side and one bottom location.



3.5.2 Subsurface samples

1. If concrete is not deteriorated, collect samples at 5, 10 and 15 ft depths at two locations approximately 3 ft outside the walls on opposite sides of the tank.
2. If concrete is cracked or damaged, locate one of the two sample borings near damaged concrete to check for potential leakage.

4. Analysis of Samples - Phase 1

4.1 Paint Stripping Sludge Areas A and B

<u>Depth</u>	<u>Analyses</u>
Surface	EP Toxicity (Lead and Chrome), pH, methylene chloride
Depth at apparent normal soil condition	EP Toxicity (Lead and Chrome), pH, methylene chloride, phenol, flash point

4.2 Below Loading Dock, Area C

<u>Depth</u>	<u>Analyses</u>
Surface	EP Toxicity (Lead and Chrome), butanol, xylene, toluene
Depth at apparent normal soil condition	Above tests plus flash point



4.3 Concrete Tank Subsurface Samples

<u>Depth</u>	<u>Analyses</u>
5 feet	EP Toxicity (Chrome), pH, flash point
10 feet	EP Toxicity (Chrome), pH

4.4 Concrete Tank or Residue

<u>Depth</u>	<u>Analyses</u>
Any	EP Toxicity (Chrome)

5. Review of Phase 1 Results

- 5.1 If the area and depth of hazardous waste contamination can be defined by Phase 1 analysis, proceed with removal and decontamination.
- 5.2 If the area and depth of contamination is not defined by Phase 1 analysis, conduct further analysis of samples to define boundaries of contamination. Develop a Phase 2 plan as needed to address this contingency.

6. Removal of Soils and Residues from Contaminated Locations

- 6.1 Removal of hazardous wastes in soils is proposed by shoveling wastes into 55 gallon steel drums (available at Union Manufacturing). Drums will have liners of 10 mil polyethylene, or other material compatible with wastes, and will be secured by steel closures.



5.2 If the concrete tank contains hazardous residue, the tank structure will be decontaminated or removed for disposal as hazardous waste.

6.3 Personnel protective equipment for removal operations will consist of rubber boots and gloves. Coveralls and respirators for removal of organic solvent vapors will be available for use if needed. Protective equipment and shovels will be discarded as hazardous wastes.

7. Maximum Waste Inventory

7.1 The maximum inventory of chromic acid in the surface impoundment is estimated at 225 lbs. as chromium.

7.2 The maximum inventory of paint stripping wash is estimated at less than one gal/day for approximately 8 years or 2000 gallons based on a 250 day-year. The proportion of sludge in the wash is not known.

8. Field observation of sampling, waste removal, and decontamination will be observed by an independent registered professional engineer, who will certify if the facility has been closed in accordance with the approved closure plan.

9. Post-Closure

The intent of the Closure Plan is to remove hazardous wastes such that the areas to be closed will not require further monitoring or maintenance activity.



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10. Closure Schedule

A proposed closure schedule is shown in Table 2, assuming that Phase 1 sampling and analysis is sufficient to define the extent of contamination.



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Table 2. Proposed Closure Schedule

Task	Dates
Preparation and Mobilization	Week 1
Phase 1 Sampling	Week 2
Phase 1 Analysis	Weeks 3 & 4
Removal of Hazardous Wastes	Weeks 5 to 8
Completion of closure certification report	Week 10



11. Closure Cost Estimate

A closure cost estimate of \$12,820.00 is given in Table 3 for 1983, based on the assumptions that 30 drums of waste will be removed and transported to an approved disposal site in California, and that the Phase 1 sampling and analysis are sufficient.



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Table 3. Closure Cost Estimate (30 drums)

Removal of Wastes

Plant labor - drum loading	
30 drums x 4 hrs/drum x 12/hr =	\$1440.00
Plant supervision	\$ 750.00
Disposal and Transportation (BKK Landfill costs)	
30 drums x \$80/drum =	\$2400.00
Allowance for shovels, protective equipment, liners, incidentals =	\$1000.00
Soil Sampling and Analysis	
Backhoe 6 hrs x \$35/hr =	\$ 210.00
Drilling crew, 1 day =	\$1000.00
Laboratory analysis (Phase 1) =	\$2200.00
Closure Certification and Plan	
Registered Engineer 55 hrs x \$68/hr	\$3740.00
Vehicle, 200 mi. x \$0.40/mi.	<u>\$ 80.00</u>
	\$ 12820.00



PLANT PROCESS INFORMATION AND CHEMICAL UTILIZATION

Background information on the plant processes and chemical utilization affecting waste generation at the closure sites was furnished by Mark Gohlmann, Purchasing Agent.

The paint strippers used were Western's Epoxy Stripper after August 1, 1982, and DuBois Cheical O/M#1 after that date.

The solutions used in the washer after phosphatizing were Turcoat Hibi-Seal from 1980 to 1982, and Oakite FH from 1976 to 1979. Rinsate from the washer was piped to a concrete tank until 1981, after which rinsate was discharged to the sewer.

Material data sheets for the above chemicals are given in Appendix 4. The available data sheets for various paints in use or previously used at the plant were also reviewed for hazardous constituents. Paints were found to include lead chromate, molybdate orange (toxic pigments), and xylene, toluene, butanol, and naphthas. Proprietary solvents were listed for some paints, and were assumed to contain similar solvents to those listed by chemical name. Xylene and toluene are understood to be used as paint thinners. Typical material data sheets are given for two paints, but not all paint data sheets were compiled for Appendix 4.

The source of chromic acid in the washer rinsate is the Oakite FH. According to purchase orders on file, 16 cases of Oakite FH at 4 gal/case were purchased between 1976 and 1979, for a total of 64 gallons. From the specific gravity of 1.594 listed on the data sheet, the solution is estimated to contain 7.4 lb. chromic acid per gallon, of which 52% is chromium, for a total of 246 lb. chromium in 64 gallons. An estimated 5 to 10% of the chromic acid remains on the tool boxes as a chromate coating.



The total quantity of chrome from Oakite FH discharged to the surface impoundment as washer rinsate is estimated at 200 to 225 lbs.

ANTICIPATED SOIL CONDITIONS

The following generalized description of the anticipated sub-surface soils conditions in the areas located south of the main facility on the subject property was based mainly on extrapolated data obtained from Wane Associates Division Job No. 68-465 for Baron Container Corporation, dated January 9, 1969. Supplemental data was obtained from the United States Geologic Survey and from the other projects accomplished by Western Technologies, Inc. in the vicinity of the subject project.

Surface soils to depths of between approximately 2 and 4 feet are anticipated to consist of sandy silts which exhibit very low plasticity, low relative density, and damp to slightly damp moisture conditions. Underlying subsoils to depths of between about 6 and 8 feet are anticipated to consist of sandy clays which exhibit low to medium plasticity, firm to moderately firm consistency and relatively damp moisture conditions. These shallow deposits may also include some cemented lenses containing gravel-sized caliche nodules. Subsoils encountered below 6 to 8 feet and extending to considerable depths are likely to consist of mixed and roughly stratified clay and sand deposits. These materials generally exhibit medium to relatively high plasticity, firm to hard consistency and relatively damp moisture conditions. Moderately to heavily cemented lenses and zones containing gravel-sized caliche nodules in a clay matrix are expected throughout these subsoils. Granite bedrock is anticipated at



nearly 1000 feet. Recent groundwater measurements in the vicinity of the subject project suggest the presence of a relatively horizontal static groundwater level at approximately 100 feet depth.

PRELIMINARY ANALYSIS OF SURFACE SAMPLES

Surface samples were collected from several locations at Union Manufacturing, including land disposal areas and the "old leach pond", for preliminary evaluation of soil contamination. Samples were collected by Frederick Amalfi, Chemical Laboratory Manager, of WTI and analyses were reported in WTI report 22121241, given in Appendix 5.

Of the eight surface samples, only the sample near the paint room was ignitable. The samples were not corrosive by pH. The pH of 7.0 at the "old leach pond" is essentially the same as the control sample pH of 7.2, which indicates that free acids are not significantly present. The highest sample of pH of 8.6 at the overflow from the paint stripping sludge disposal area indicates that contamination from the caustic stripper is minimal.

The lead analyses reported are total rather than extractable lead. Locations 2 through 6 are anticipated to contain lead and possibly chromium from paint pigments above the EP Toxicity limit of 5 ppm. Phenol was detected in sample locations which are anticipated to be EP toxic for lead or chromium.

Surface contamination by perchloroethylene and methylene chloride appears to be associated with paint and stripping residues.



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APPENDIX



APPENDIX 1
Regulatory Requirements of 40 CFR 265.112 and 142

Regulation	Subject
1. 40CFR 265.112	Closure Plan
Included in 265.112:	
265.111	Closure Performance Standard
265.197	Closure-Removal of Hazardous Residues from Tanks
265.228	Closure and post-closure - Removal of hazardous contents, residues, and liners from impoundments
265.280	Closure and post-closure - Control of release and migration of hazardous material from land treatment facilities
265.310	Closure and post-closure - Landfills. Not applicable
265.351	Closure - Incinerators. Not applicable
265.381	Closure - Thermal Treatment Facilities - Not applicable
265.404	Closure - Chemical, Physical, and Biological Treatment. Not applicable.
2. 40 CFR 265.142	Cost estimate for facility closure



the evaluations required in § 265.93(b) throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Report the following ground-water monitoring information to the Regional Administrator:

(i) During the first year when initial background concentrations are being established for the facility: concentrations or values of the parameters listed in § 265.92(b)(1) for each ground-water monitoring well within 15 days after completing each quarterly analysis. The owner or operator must separately identify for each monitoring well any parameters whose concentration or value has been found to exceed the maximum contaminant levels listed in Appendix III.

(ii) Annually: concentrations or values of the parameters listed in § 265.92(b)(3) for each ground-water monitoring well, along with the required evaluations for these parameters under § 265.93(b). The owner or operator must separately identify any significant differences from initial background found in the upgradient wells, in accordance with § 265.93(c)(1). During the active life of the facility, this information must be submitted as part of the annual report required under § 265.75.

(iii) As a part of the annual report required under § 265.75: results of the evaluation of ground-water surface elevations under § 265.93(f), and a description of the response to that evaluation, where applicable.

(b) If the ground water is monitored to satisfy the requirements of § 265.93(d)(4), the owner or operator must:

(1) Keep records of the analyses and evaluations specified in the plan, which satisfies the requirements of § 265.93(d)(3), throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Annually, until final closure of the facility, submit to the Regional Administrator a report containing the results of his ground-water quality assessment program which includes, but is not limited to, the calculated (or measured) rate of migration of hazardous waste or hazardous waste constituents in the ground water during the reporting period. This report must be submitted as part of the annual report required under § 265.75.

§§ 265.95-265.109 [Reserved]

Subpart G—Closure and Post-Closure

§ 265.110 Applicability.

Except as § 265.1 provides otherwise: (a) Sections 265.111-265.115 (which concern closure) apply to the owners and operators of all hazardous waste facilities; and

(b) Sections 265.117-265.120 (which concern post-closure care) apply to the owners and operators of all disposal facilities.

§ 265.111 Closure performance standard.

The owner or operator must close his facility in a manner that: (a) minimizes the need for further maintenance, and (b) controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground water, or surface waters, or to the atmosphere.

§ 265.112 Closure plan; amendment of plan.

(a) On the effective date of these regulations, the owner or operator must have a written closure plan. He must keep this plan at the facility. This plan must identify the steps necessary to completely close the facility at any point during its intended life and at the end of its intended life. The closure plan must include, at least:

(1) A description of how and when the facility will be partially closed, if applicable, and ultimately closed. The description must identify the maximum extent of the operation which will be be unclosed during the life of the facility, and how the requirements of § 265.111 and the applicable closure requirements of §§ 265.197, 265.228, 265.280, 265.310, 265.351, 265.381, and 265.404 will be met;

(2) An estimate of the maximum inventory of wastes in storage or in treatment at any given time during the life of the facility;

(3) A description of the steps needed to decontaminate facility equipment during closure; and

(4) A schedule for final closure which must include, as a minimum, the anticipated date when wastes will no longer be received, the date when completion of final closure is anticipated, and intervening milestone dates which will allow tracking of the progress of closure. (For example, the expected date for completing treatment or disposal of waste inventory must be included, as must the planned date for removing any residual wastes from

storage facilities and treatment processes.)

(b) The owner or operator may amend his closure plan at any time during the active life of the facility. (The active life of the facility is that period during which wastes are periodically received.) The owner or operator must amend his plan any time changes in operating plans or facility design affect the closure plan.

(c) The owner or operator must submit his closure plan to the Regional Administrator at least 180 days before the date he expects to begin closure. The Regional Administrator will modify, approve, or disapprove the plan within 90 days of receipt and after providing the owner or operator and the affected public (through a newspaper notice) the opportunity to submit written comments. If an owner or operator plans to begin closure within 180 days after the effective date of these regulations, he must submit the necessary plans on the effective date of these regulations.

§ 265.113 Time allowed for closure.

(a) Within 90 days after receiving the final volume of hazardous wastes, the owner or operator must treat all hazardous wastes in storage or in treatment, or remove them from the site, or dispose of them on-site, in accordance with the approved closure plan.

(b) The owner or operator must complete closure activities in accordance with the approved closure plan and within six months after receiving the final volume of wastes. The Regional Administrator may approve a longer closure period under § 265.112(c) if the owner or operator can demonstrate that: (1) the required or planned closure activities will, of necessity, take him longer than six months to complete, and (2) that he has taken all steps to eliminate any significant threat to human health and the environment from the unclosed but inactive facility.

§ 265.114 Disposal or decontamination of equipment.

When closure is completed, all facility equipment and structures must have been properly disposed of, or decontaminated by removing all hazardous waste and residues.

§ 265.115 Certification of closure.

When closure is completed, the owner or operator must submit to the Regional Administrator certification both by the owner or operator and by an independent registered professional engineer that the facility has been closed in accordance with the

specifications in the approved closure plan.

§ 265.116 [Reserved]

§ 265.117 Post-closure care and use of property; period of care.

(a) Post-closure care must consist of at least:

(1) Ground-water monitoring and reporting in accordance with the requirements of Subpart F; and

(2) Maintenance of monitoring and waste containment systems as specified in §§ 265.91, 265.223, 265.228, 265.280, and 265.310, where applicable.

(b) The Regional Administrator may require maintenance of any or all of the security requirements of § 265.14 during the post-closure period, when:

(1) Wastes may remain exposed after completion of closure; or

(2) Short term, incidental access by the public or domestic livestock may pose a hazard to human health.

(c) Post-closure use of property on or in which hazardous waste remains after closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of any containment system, or the function of the facility's monitoring systems, unless the owner or operator can demonstrate to the Regional Administrator, either in the post-closure plan or by petition, that the disturbance:

(1) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(2) Is necessary to reduce a threat to human health or the environment.

(d) The owner or operator of a disposal facility must provide post-closure care in accordance with the approved post-closure plan for at least 30 years after the date of completing closure. However, the owner or operator may petition the Regional Administrator to allow some or all of the requirements for post-closure care to be discontinued or altered before the end of the 30-year period. The petition must include evidence demonstrating the secure nature of the facility that makes continuing the specified post-closure requirement(s) unnecessary—e.g., no detected leaks and none likely to occur, characteristics of the waste, application of advanced technology, or alternative disposal, treatment, or re-use techniques. Alternately, the Regional Administrator may require the owner or operator to continue one or more of the post-closure care and maintenance requirements contained in the facility's post-closure plan for a specified period of time. The Regional Administrator may do this if he finds there has been

noncompliance with any applicable standards or requirements, or that such continuation is necessary to protect human health or the environment. At the end of the specified period of time, the Regional Administrator will determine whether to continue or terminate post-closure care and maintenance at the facility. Anyone (a member of the public as well as the owner or operator) may petition the Regional Administrator for an extension or reduction of the post-closure care period based on cause. These petitions will be considered by the Regional Administrator at the time the post-closure plan is submitted and at five-year intervals after the completion of closure.

§ 265.118 Post-closure plan; amendment of plan.

(a) On the effective date of these regulations, the owner or operator of a disposal facility must have a written post-closure plan. He must keep this plan at the facility. This plan must identify the activities which will be carried on after final closure and the frequency of those activities. The post-closure plan must include at least:

(1) Ground-water monitoring activities and frequencies as specified in Subpart F for the post-closure period; and

(2) Maintenance activities and frequencies to ensure: (1) the integrity of the cap and final cover or other containment structures as specified in §§ 265.223, 265.228, 265.280, and 265.310, where applicable, and (2) the function of the facility's monitoring equipment as specified in § 265.91.

(b) The owner or operator may amend his post-closure plan at any time during the active life of the disposal facility or during the post-closure care period. The owner or operator must amend his plan any time changes in operating plans or facilities design affect his post-closure plan.

(c) The owner or operator of a disposal facility must submit his post-closure plan to the Regional Administrator at least 180 days before the date he expects to begin closure. The Regional Administrator will modify or approve the plan within 90 days of receipt and after providing the owner or operator and the affected public (through a newspaper notice) the opportunity to submit written comments. The plan may be modified to include security equipment maintenance under § 265.117(b). If an owner or operator of a disposal facility plans to begin closure within 180 days after the effective date of these regulations, he must submit the necessary plans on the effective date of these regulations. Any amendments to the plan under paragraph (b) of this

Section which occur after approval of the plan must also be approved by the Regional Administrator before they may be implemented.

§ 265.119 Notice to local land authority.

Within 90 days after closure is completed, the owner or operator of a disposal facility must submit to the local land authority and to the Regional Administrator a survey plat indicating the location and dimensions of landfill cells or other disposal areas with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local land authority must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the site as specified in § 265.117(c). In addition, the owner or operator must submit to the Regional Administrator and to the local land authority a record of the type, location, and quantity of hazardous wastes disposed of within each cell or area of the facility. For wastes disposed of before these regulations were promulgated, the owner or operator must identify the type, location, and quantity of the wastes to the best of his knowledge and in accordance with any records he has kept.

§ 265.120 Notice in deed to property.

The owner of the property on which a disposal facility is located must record, in accordance with State law, a notation on the deed to the facility property—or on some other instrument which is normally examined during title search—that will in perpetuity notify any potential purchaser of the property that: (1) the land has been used to manage hazardous waste, and (2) its use is restricted under § 265.117(c).

§§ 265.121-265.139 [Reserved]

Subpart H—Financial Requirements

§ 265.140 Applicability.

(a) Section 265.142 applies to owners and operators of all hazardous waste facilities, except as this Section or § 265.1 provide otherwise.

(b) Section 265.144 applies only to owners and operators of disposal facilities.

(c) States and the Federal government are exempt from the requirements of this Subpart.

§ 265.141 [Reserved]

§ 265.142 Cost estimate for facility closure.

(a) On the effective date of these regulations, each facility owner or

operator must have a written estimate of the cost of closing the facility in accordance with the requirements in §§ 265.111-265.115 and applicable closure requirements in §§ 265.197, 265.228, 265.280, 265.310, 265.351, 265.381, and 265.404. The owner or operator must keep this estimate, and all subsequent estimates required in this Section, at the facility. The estimate must equal the cost of closure at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan (see § 265.112(a)).

[Comment: For example, the closure cost estimate for a particular landfill may be for the cost of closure when its active disposal operations extend over 20 acres, if at all other times these operations extend over less than 20 acres. The estimate would not include costs of partial closures that the closure plan schedules before or after the time of maximum closure cost.]

(b) The owner or operator must prepare a new closure cost estimate whenever a change in the closure plan affects the cost of closure.

(c) On each anniversary of the effective date of these regulations, the owner or operator must adjust the latest closure cost estimate using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its *Survey of Current Business*. The inflation factor must be calculated by dividing the latest published annual Deflator by the Deflator for the previous year. The result is the inflation factor. The adjusted closure cost estimate must equal the latest closure cost estimate (see paragraph (b) of this Section) times the inflation factor.

[Comment: The following is a sample calculation of the adjusted closure cost estimate: Assume that the latest closure cost estimate for a facility is \$50,000, the latest published annual Deflator is 152.05, and the annual Deflator for the previous year is 141.70. The Deflators may be rounded to the nearest whole number. Dividing 152 by 142 gives the inflation factor, 1.07. Multiply \$50,000 by 1.07 for a product of \$53,500—the adjusted closure cost estimate.]

§ 265.143 [Reserved]

§ 265.144 Cost estimate for post-closure monitoring and maintenance.

(a) On the effective date of these regulations, the owner or operator of a disposal facility must have a written estimate of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the

applicable post-closure regulations in §§ 265.117-265.129, 265.228, 265.280, and 265.330. The owner or operator must keep this estimate, and all subsequent estimates required in this Section, at the facility.

(b) The owner or operator must prepare a new annual post-closure cost estimate whenever a change in the post-closure plan affects the cost of post-closure care (see § 265.118(b)). The latest post-closure cost estimate is calculated by multiplying the latest annual post-closure cost estimate by 30.

(c) On each anniversary of the effective date of these regulations, during the operating life of the facility, the owner or operator must adjust the latest post-closure cost estimate using the inflation factor calculated in accordance with § 265.142(c). The adjusted post-closure cost estimate must equal the latest post-closure cost estimate (see paragraph (b) of this Section) times the inflation factor.

§§ 265.145-265.169 [Reserved]

Subpart I—Use and Management of Containers

§ 265.170 Applicability.

The regulations in this Subpart apply to owners and operators of all hazardous waste facilities that store containers of hazardous waste, except as § 265.1 provides otherwise.

§ 265.171 Condition of containers.

If a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition, or manage the waste in some other way that complies with the requirements of this Part.

§ 265.172 Compatibility of waste with container.

The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

§ 265.173 Management of containers.

(a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

(b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

[Comment: A container that is a hazardous waste listed in § 261.33 of this Chapter must be managed in

compliance with the regulations of this Part. Re-use of containers in transportation is governed by U.S. Department of Transportation regulations, including those set forth in 49 CFR 173.28.]

§ 265.174 Inspections.

The owner or operator must inspect areas where containers are stored, at least weekly, looking for leaks and for deterioration caused by corrosion or other factors.

[Comment: See § 265.171 for remedial action required if deterioration or leaks are detected.]

§ 265.175 [Reserved]

§ 265.176 Special requirements for ignitable or reactive waste.

Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

[Comment: See § 265.17(a) for additional requirements.]

§ 265.177 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same container, unless § 265.17(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material (see Appendix V for examples), unless § 265.17(b) is complied with.

(c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

[Comment: The purpose of this is to prevent fires, explosions, gaseous emissions, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the mixing of incompatible wastes or materials if containers break or leak.]

§ 265.178-265.189 [Reserved]

Subpart J—Tanks

§ 265.190 Applicability.

The regulations in this Subpart apply to owners and operators of facilities that use tanks to treat or store hazardous waste, except as § 265.1 provides otherwise.

§ 265.191 [Reserved]**§ 265.192 General operating requirements.**

(a) Treatment or storage of hazardous waste in tanks must comply with § 265.17(b).

(b) Hazardous wastes or treatment reagents must not be placed in a tank if they could cause the tank or its inner liner to rupture, leak, corrode, or otherwise fail before the end of its intended life.

(c) Uncovered tanks must be operated to ensure at least 60 centimeters (2 feet) of freeboard, *unless* the tank is equipped with a containment structure (e.g., dike or trench), a drainage control system, or a diversion structure (e.g., standby tank) with a capacity that equals or exceeds the volume of the top 60 centimeters (2 feet) of the tank.

(d) Where hazardous waste is continuously fed into a tank, the tank must be equipped with a means to stop this inflow (e.g., a waste feed cutoff system or by-pass system to a stand-by tank).

[Comment: These systems are intended to be used in the event of a leak or overflow from the tank due to a system failure (e.g., a malfunction in the treatment process, a crack in the tank, etc.).]

§ 265.193 Waste analysis and trial tests.

(a) In addition to the waste analysis required by § 265.13, whenever a tank is to be used to:

(1) Chemically treat or store a hazardous waste which is substantially different from waste previously treated or stored in that tank; or

(2) Chemically treat hazardous waste with a substantially different process than any previously used in that tank; the owner or operator must, before treating or storing the different waste or using the different process:

(i) Conduct waste analyses and trial treatment or storage tests (e.g., bench scale or pilot plant scale tests); or

(ii) Obtain written, documented information on similar storage or treatment of similar waste under similar operating conditions;

to show that this proposed treatment or storage will meet all applicable requirements of § 265.192(a) and (b).

[Comment: As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.198 and 265.199. As required by § 265.73, the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.]

§ 265.194 Inspections.

(a) The owner or operator of a tank must inspect, where present:

(1) Discharge control equipment (e.g., waste feed cut-off systems, by-pass systems, and drainage systems), at least once each operating day, to ensure that it is in good working order;

(2) Data gathered from monitoring equipment (e.g., pressure and temperature gauges), at least once each operating day, to ensure that the tank is being operated according to its design;

(3) The level of waste in the tank, at least once each operating day, to ensure compliance with § 265.192(c);

(4) The construction materials of the tank, at least weekly, to detect corrosion or leaking of fixtures or seams; and

(5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes), at least weekly, to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).

[Comment: As required by § 265.15(c), the owner or operator must remedy any deterioration or malfunction he finds.]

§§ 265.195-265.196 [Reserved]**§ 265.197 Closure.**

At closure, all hazardous waste and hazardous waste residues must be removed from tanks, discharge control equipment, and discharge confinement structures.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with § 261.3(c) or (d) of this Chapter, that any solid waste removed from his tank is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of this Chapter.]

§ 265.198 Special requirements for ignitable or reactive waste.

(a) Ignitable or reactive waste must not be placed in a tank, unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the tank so that (i) the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under §§ 261.21 or 261.23 of this Chapter, and (ii) § 265.17(b) is complied with; or

(2) The waste is stored or treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react; or

(3) The tank is used solely for emergencies.

(b) The owner or operator of a facility which treats or stores ignitable or reactive waste in covered tanks must comply with the National Fire Protection Association's (NFPA's) buffer zone requirements for tanks, contained in Tables 2-1 through 2-6 of the "Flammable and Combustible Code—1977".

[Comment: See § 265.17(a) for additional requirements.]

§ 265.199 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same tank, unless § 265.17(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed tank which previously held an incompatible waste or material, unless § 265.17(b) is complied with.

§§ 265.200-265.219 [Reserved]**Subpart K—Surface Impoundments****§ 265.220 Applicability.**

The regulations in this Subpart apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste, except as § 265.1 provides otherwise.

§ 265.221 [Reserved]**§ 265.222 General operating requirements.**

A surface impoundment must maintain enough freeboard to prevent any overtopping of the dike by overfilling, wave action, or a storm. There must be at least 60 centimeters (2 feet) of freeboard.

[Comment: Any point source discharge from a surface impoundment to waters of the United States is subject to the requirements of Section 402 of the Clean Water Act, as amended. Spills may be subject to Section 311 of that Act.]

§ 265.223 Containment system.

All earthen dikes must have a protective cover, such as grass, shale, or rock, to minimize wind and water erosion and to preserve their structural integrity.

§ 265.224 [Reserved]**§ 265.225 Waste analysis and trial tests.**

(a) In addition to the waste analyses required by § 265.13, whenever a surface impoundment is to be used to:

(1) Chemically treat a hazardous waste which is substantially different from waste previously treated in that impoundment; or



(2) Chemically treat hazardous waste with a substantially different process than any previously used in that impoundment; the owner or operator must, before treating the different waste or using the different process:

(i) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests); or

(ii) Obtain written, documented information on similar treatment of similar waste under similar operating conditions; to show that this treatment will comply with § 265.17(b).

[Comment: As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.229 and 265.230. As required by § 265.73, the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.]

§ 265.226 Inspections.

(a) The owner or operator must inspect:

(1) The freeboard level at least once each operating day to ensure compliance with § 265.222, and

(2) The surface impoundment, including dikes and vegetation surrounding the dike, at least once a week to detect any leaks, deterioration, or failures in the impoundment.

[Comment: As required by § 265.15(c), the owner or operator must remedy any deterioration or malfunction he finds.]

§ 265.227 [Reserved]

§ 265.228 Closure and post-closure.

(a) At closure, the owner or operator may elect to remove from the impoundment:

- (1) Standing liquids;
- (2) Waste and waste residues;
- (3) The liner, if any; and
- (4) Underlying and surrounding contaminated soil.

(b) If the owner or operator removes all the impoundment materials in paragraph (a) of this Section, or can demonstrate under § 261.3(c) and (d) of this Chapter that none of the materials remaining at any stage of removal are hazardous wastes, the impoundment is not further subject to the requirements of this Part.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with § 261.3 (a) or (d) of this Chapter, that any solid waste removed from the surface impoundment is not a hazardous waste, he becomes a generator of hazardous waste and must manage it in accordance with all

applicable requirements of Parts 262, 263, and 266 of this Chapter. The surface impoundment may be subject to Part 253 of this Chapter even if it is not subject to this Part.]

(c) If the owner or operator does not remove all the impoundment materials in paragraph (a) of this Section, or does not make the demonstration in paragraph (b) of this Section, he must close the impoundment and provide post-closure care as for a landfill under Subpart G and § 265.318. If necessary to support the final cover specified in the approved closure plan, the owner or operator must treat remaining liquids, residues, and soils by removal of liquids, drying, or other means.

[Comment: The closure requirements under § 265.318 will vary with the amount and nature of the residues remaining, if any, and the degree of contamination of the underlying and surrounding soil. Section 265.117(d) allows the Regional Administrator to vary post-closure care requirements.]

§ 265.229 Special requirements for ignitable or reactive waste.

(a) Ignitable or reactive waste must not be placed in a surface impoundment, unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that

(i) the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under §§ 261.21 or 261.23 of this Chapter, and (ii) § 265.17(b) is complied with; or

(2) The surface impoundment is used solely for emergencies.

§ 265.230 Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same surface impoundment, unless § 265.17(b) is complied with.

§§ 265.231-265.249 [Reserved]

Subpart L—Waste Piles

§ 265.250 Applicability.

The regulations in this Subpart apply to owners and operators of facilities that treat or store hazardous waste in piles, except as § 265.1 provides otherwise. Alternatively, a pile of hazardous waste may be managed as a landfill under Subpart M.

§ 265.251 Protection from wind.

The owner or operator of a pile containing hazardous waste which could be subject to dispersal by wind must

cover or otherwise manage the pile so that wind dispersal is controlled.

§ 265.252 Waste analysis.

In addition to the waste analyses required by § 265.13, the owner or operator must analyze a representative sample of waste from each incoming movement before adding the waste to any existing pile, unless (1) the only wastes the facility receives which are amenable to piling are compatible with each other, or (2) the waste received is compatible with the waste in the pile to which it is to be added. The analysis conducted must be capable of differentiating between the types of hazardous waste the owner or operator places in piles, so that mixing of incompatible waste does not inadvertently occur. The analysis must include a visual comparison of color and texture.

[Comment: As required by § 265.13, the waste analysis plan must include analyses needed to comply with §§ 265.256 and 265.257. As required by § 265.73, the owner or operator must place the results of this analysis in the operating record of the facility.]

§ 265.253 Containment.

If leachate or run-off from a pile is a hazardous waste, then either:

(a) The pile must be placed on an impermeable base that is compatible with the waste under the conditions of treatment or storage, run-on must be diverted away from the pile, and any leachate and run-off from the pile must be collected and managed as a hazardous waste; or

(b)(1) The pile must be protected from precipitation and run-on by some other means; and

(2) No liquids or wastes containing free liquids may be placed in the pile.

[Comment: If collected leachate or run-off is discharged through a point source to waters of the United States, it is subject to the requirements of Section 402 of the Clean Water Act, as amended.]

(c) The date for compliance with paragraphs (a) and (b)(1) of this Section is 12 months after the effective date of this Part.

§§ 265.254-265.255 [Reserved]

§ 265.256 Special requirements for ignitable or reactive waste.

(a) Ignitable or reactive wastes must not be placed in a pile, unless:

(1) Addition of the waste to an existing pile (i) results in the waste or mixture no longer meeting the definition of ignitable or reactive waste under



(A)		
Soil cation exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)	
	Background soil pH less than 6.5	Background soil pH greater than 6.5
Less than 5.....	5	5
5-15.....	5	10
Greater than 15.....	5	20

(B) For soils with a background pH of less than 6.5, the cumulative cadmium application rate does not exceed the levels below: *Provided*, that the pH of the waste and soil mixture is adjusted to and maintained at 6.5 or greater whenever food chain crops are grown.

Soil cation exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)
Less than 5.....	5
5-15.....	10
Greater than 15.....	20

(2)(i) The only food chain crop produced is animal feed.

(ii) The pH of the waste and soil mixture is 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level is maintained whenever food chain crops are grown.

(iii) There is a facility operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The facility operating plan describes the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses.

(iv) Future property owners are notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food chain crops should not be grown, due to a possible health hazard.

[*Comment:* As required by § 265.73, if an owner or operator grows food chain crops on his land treatment facility, he must place the information developed in this Section in the operating record of the facility.]

§ 265.277 [Reserved]

§ 265.278 Unsaturated zone (zone of aeration) monitoring.

(a) The owner or operator must have in writing, and must implement, an unsaturated zone monitoring plan which is designed to:

- (1) Detect the vertical migration of hazardous waste and hazardous waste constituents under the active portion of the land treatment facility, and
- (2) Provide information on the background concentrations of the

hazardous waste and hazardous waste constituents in similar but untreated soils nearby; this background monitoring must be conducted before or in conjunction with the monitoring required under paragraph (a)(1) of this Section.

(b) The unsaturated zone monitoring plan must include, at a minimum:

- (1) Soil monitoring using soil cores, and
 - (2) Soil-pore water monitoring using devices such as lysimeters.
- (c) To comply with paragraph (a)(1) of this Section, the owner or operator must demonstrate in his unsaturated zone monitoring plan that:

(1) The depth at which soil and soil-pore water samples are to be taken is below the depth to which the waste is incorporated into the soil;

(2) The number of soil and soil-pore water samples to be taken is based on the variability of:

(i) The hazardous waste constituents (as identified in § 265.273(a) and (b)) in the waste and in the soil; and

(ii) The soil type(s); and

(3) The frequency and timing of soil and soil-pore water sampling is based on the frequency, time, and rate of waste application, proximity to ground water, and soil permeability.

(d) The owner or operator must keep at the facility his unsaturated zone monitoring plan, and the rationale used in developing this plan.

(e) The owner or operator must analyze the soil and soil-pore water samples for the hazardous waste constituents that were found in the waste during the waste analysis under § 265.273 (a) and (b).

[*Comment:* As required by § 265.73, all data and information developed by the owner or operator under this Section must be placed in the operating record of the facility.]

§ 265.279 Recordkeeping.

The owner or operator of a land treatment facility must keep records of the application dates, application rates, quantities, and location of each hazardous waste placed in the facility, in the operating record required in § 265.73.

§ 265.280 Closure and post-closure.

(a) In the closure plan under § 265.112 and the post-closure plan under § 265.118, the owner or operator must address the following objectives and indicate how they will be achieved:

- (1) Control of the migration of hazardous waste and hazardous waste constituents from the treated area into the ground water;

(2) Control of the release of contaminated run-off from the facility into surface water;

(3) Control of the release of airborne particulate contaminants caused by wind erosion; and

(4) Compliance with § 265.278 concerning the growth of food-chain crops.

(b) The owner or operator must consider at least the following factors in addressing the closure and post-closure care objectives of paragraph (a) of this Section:

(1) Type and amount of hazardous waste and hazardous waste constituents applied to the land treatment facility;

(2) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;

(3) Site location, topography, and surrounding land use, with respect to the potential effects of pollutant migration (e.g., proximity to ground water, surface water and drinking water sources);

(4) Climate, including amount, frequency, and pH of precipitation;

(5) Geological and soil profiles and surface and subsurface hydrology of the site, and soil characteristics, including cation exchange capacity, total organic carbon, and pH;

(6) Unsaturated zone monitoring information obtained under § 265.278; and

(7) Type, concentration, and depth of migration of hazardous waste constituents in the soil as compared to their background concentrations.

(c) The owner or operator must consider at least the following methods in addressing the closure and post-closure care objectives of paragraph (a) of this Section:

(1) Removal of contaminated soils;

(2) Placement of a final cover, considering: (i) Functions of the cover (e.g., infiltration control, erosion and run-off control, and wind erosion control), and (ii) Characteristics of the cover, including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope, and type of vegetation on the cover;

(3) Collection and treatment of run-off;

(4) Diversion structures to prevent surface water run-on from entering the treated area; and

(5) Monitoring of soil, soil-pore water, and ground water.

(d) In addition to the requirements of § 265.117, during the post-closure care period, the owner or operator of a land treatment facility must:

- (1) Maintain any unsaturated zone monitoring system, and collect and analyze samples from this system in a

Partial Closure Plan
Job No. 2583J070

APPENDIX 2
EPA Region IX Investigation Report No. R(83) E006





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

215 Fremont Street
San Francisco, Ca. 94105

RECEIVED JAN 11 1983

EPA Identification No.: AZ0088301213
Report No.: R(83)E006

January 6, 1983

Mr. Mark Gohlmann
Purchasing Agent
Union Manufacturing Inc.
6625 West Allison Road
Chandler, AZ 85224

Dear Mr. Gohlmann:

On December 1, 1982 a hazardous waste investigation was conducted at your facility. During the course of this investigation, information was gathered in accordance with Section 3007 of the Resource Conservation and Recovery Act of 1976. A copy of our investigation report is enclosed for your information.

If you have questions related directly to technical aspects of this report, please contact Karen O'Regan at (415) 974-8370.


Sincerely yours,

A handwritten signature in cursive script that reads "Kathleen G. Shimmin".

Kathleen G. Shimmin
Chief, Compliance and Response Branch
Toxics and Waste Management Division

Enclosure



 POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT				I. IDENTIFICATION 01 STATE 02 SITE NUMBER	
II. SITE NAME AND LOCATION					
01 SITE NAME (Legal, common, or descriptive name of site) <u>Union Manufacturing Inc.</u>			02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER <u>6625 W. Allison</u>		
03 CITY <u>Chandler</u>		04 STATE <u>AZ</u>	05 ZIP CODE <u>85224</u>	06 COUNTY <u>Maricopa</u>	07 COUNTY & 08 CONG. DIST. CODE
09 COORDINATES LATITUDE		LONGITUDE			
10 DIRECTIONS TO SITE (Starting from nearest public road) <u>Facility (SITE) is located in the Pima-Chandler Industrial Park on the Gila River Indian Reservation (Indian Land).</u>					
III. RESPONSIBLE PARTIES					
01 OWNER (If known) <u>Master Lease w/ Lone Butte Dev. E.L. Jones Const. Co. occupies bldg. corp.</u>			02 STREET (Business, main, residential) <u>Lone Butte Chandler, AZ</u>		
03 CITY <u>Phoenix</u>		04 STATE <u>AZ</u>	05 ZIP CODE	06 TELEPHONE NUMBER <u>(602) 264-2476</u>	
07 OPERATOR (If known and different from owner) <u>Union Manufacturing (owned by Actel-Trising Metal Display Subsidiary of Model Industries)</u>			08 STREET (Business, main, residential) <u>Union Mfg - See above Model Inds Route 47 @ Cannonball Trail</u>		
09 CITY <u>Yorkville</u>		10 STATE <u>IL</u>	11 ZIP CODE	12 TELEPHONE NUMBER <u>(312) 553-6601</u>	
13 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: <u>Facility on Federal Land</u> <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ (Specify) <input type="checkbox"/> G. UNKNOWN					
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) <input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: ____/____/____ MONTH DAY YEAR <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (RCRA 103(c)) DATE RECEIVED: ____/____/____ MONTH DAY YEAR <input type="checkbox"/> C. NONE					
IV. CHARACTERIZATION OF POTENTIAL HAZARD					
01 ON-SITE INSPECTION <input checked="" type="checkbox"/> YES DATE <u>12/1/82</u> MONTH DAY YEAR <input checked="" type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> NO <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) CONTRACTOR NAME(S): _____					
02 SITE STATUS (Check one) <input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION <u>In operation at site 12 yrs.</u> BEGINNING YEAR _____ ENDING YEAR _____ <input type="checkbox"/> UNKNOWN			
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED <u>On-site land disposal of paint waste; paint stripping waste; waste water/sludge from paint stripping waste disposal area.</u>					
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION <u>Site(s) is unfenced and accessible via an unpaved road. Possible ignitable/toxic wastes on ground (waste not analyzed) could impact groundwater.</u>					
V. PRIORITY ASSESSMENT					
01 PRIORITY FOR INSPECTION (Check one. If not, or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents) <input type="checkbox"/> A. HIGH (Inspection required promptly) <input checked="" type="checkbox"/> B. MEDIUM (Inspection required) <input type="checkbox"/> C. LOW (Inspection on next available basis) <input type="checkbox"/> D. NONE (No further action needed - complete current disposition form) <u>Action by facility required</u>					
VI. INFORMATION AVAILABLE FROM					
01 CONTACT <u>Mark Gohlmann, Rep</u>		02 OF (Agency/ Organization) <u>Union Manufacturing</u>		03 TELEPHONE NUMBER <u>(602) 961-1022</u>	
04 PERSON RESPONSIBLE FOR ASSESSMENT <u>Raeen O'Regan</u>		05 AGENCY <u>EPA</u>	06 ORGANIZATION <u>Toxics</u>	07 TELEPHONE NUMBER <u>(415) 974-8370</u>	08 DATE <u>12/22/82</u>

EPA FORM 2670-12 (7-81)

See RCRA Interim Status Standards Facility Inspection



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS *Continued*

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

observed
The inspector ^ No vegetation in potentially contaminated areas.

01 ☐ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION *(include name(s) of species)*

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

01 ☐ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

None documented

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES
(Spills runoff standing liquids leaking drums)
03 POPULATION POTENTIALLY AFFECTED: _____

02 ☒ OBSERVED (DATE: 12/1/82)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

None documented

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

unknown

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

See "M"

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

V. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*





POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

01 ☐ B. SURFACE WATER CONTAMINATION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

None documented

01 ☐ C. CONTAMINATION OF AIR

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

None documented

01 ☐ D. FIRE EXPLOSIVE CONDITIONS

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

Waste has not been analyzed

01 ☐ E. DIRECT CONTACT

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

Gila River Indian Reservation.

Site is unfenced and is accessible via an unpaved road

01 ☐ F. CONTAMINATION OF SOIL

02 ☒ OBSERVED (DATE: 12/1/82)

☐ POTENTIAL

☐ ALLEGED

03 AREA POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

See Attached narrative

01 ☐ G. DRINKING WATER CONTAMINATION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

Mr. Gohlmann stated that groundwater below site is not used for drinking - this should be verified.

01 ☐ H. WORKER EXPOSURE/INJURY

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 WORKERS POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

01 ☐ I. POPULATION EXPOSURE/INJURY

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

See "E".



INSPECTION REPORT

U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 9

TOXICS AND WASTE MANAGEMENT DIVISION

COMPLIANCE AND RESPONSE BRANCH

Purpose: RCRA Interim Status Standards (ISS)
Investigation

Facility: Union Manufacturing Inc.
6625 West Allison Rd.
Chandler, Arizona 85224

Date of Investigation: December 1, 1982

Report Number: R(83)E006

EPA Identification Number: AZD088301213

EPA Investigator: Karen O'Regan
Environmental Protection Specialist
Field Inspections Section

Facility Representatives: Mark Gohlmann
Purchasing Agent
(602)961-1022

Rip Renn
Paint Room Supervisor

Date Report Completed: 29 DEC 1982



BACKGROUND

Union Manufacturing Inc. is located in the Pima-Chandler Industrial Park on the Gila River Indian Reservation. On November 19, 1981 Union Manufacturing notified EPA as a generator of the following hazardous wastes (Appendix 1):

- F003: The spent non-halogenated solvents, xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, n-butyl alcohol, cyclohexanone, and the still bottoms from the recovery of these solvents.
- F005: The spent non-halogenated solvents, methanol, toluene, methyl ethyl ketone, methyl isobutyl ketone, carbon disulfide, isobutanol, pyridine and the still bottoms from the recovery of these solvents.
- F017: Paint residues or sludges from industrial painting in the mechanical and electrical products industry.
- F018: Wastewater treatment sludges from industrial painting in the mechanical and electrical products industry.

On January 16, 1981 EPA hazardous waste nos. F017 and F018 were suspended temporarily from the list of hazardous wastes.

On November 18, 1980 Union Manufacturing Inc. submitted a Part A Permit Application to EPA (Appendix 2). This document lists the site activities as storage of ignitable waste in 55 gallon drums (50 tons annually), and disposal of corrosive waste in a surface impoundment (1050 pounds annually).

On July 23, 1982 a RCRA Interim Status Ground Water Monitoring Inspection was conducted at Union Manufacturing by Bill Porter, U.S. EPA Contractor (Appendix 3). This inspection report states that the surface impoundment, which was used for leach disposal of liquid chemicals used in the wash process, is inactive. The report additionally identifies the land disposal of paint stripping wastes at Union Manufacturing.

During July and August, 1982 EPA sent several letters requesting that Union Manufacturing submit evidence of compliance with RCRA closure, post-closure, and financial requirements. On August 23, Mark Gohlmann, Union Manufacturing sent a letter to EPA requesting exemption from the regulations as a "small quantity generator" (Appendix 4). On October 1, EPA sent a letter to Mr. Gohlmann, stating that the activities described in the Part A Application do not meet the provisions of a "small quantity generator" (Appendix 5).



On November 22, 1982, the investigator contacted Mr. Gohlmann, and scheduled the inspection. Prior to the inspection, the investigator received copies of Union Manufacturing's manifests and dump receipts for 1980 from the Arizona Department of Health Services (Appendix 6).

INVESTIGATION

The investigator presented her credentials, and explained the purpose of the inspection to Mr. Gohlmann.

Mr. Gohlmann described the facility operations to the investigator. He explained that tool boxes are manufactured by cutting and pressing steel to the desired size and shape. The boxes are then cleaned using a two-stage phosphatizing washer. During the cleaning process, the boxes are sprayed with a phosphatizing chemical called KOTE 52. The Product Bulletin for KOTE 52 was requested by the investigator, and received at EPA on December 14, 1982 (Appendix 7). The KOTE 52 is diluted with water as follows: two parts KOTE 52 to a hundred gallons of water. Prior to October, 1982 a phosphatizing chemical called Turcoat Hibi-Seal was used in the washer. Material Safety Data sheets for this compound are attached (Appendix 8). Mr. Gohlmann stated that the biodegradable rinsate from the wash operation is currently discharged into the sewer. Prior to January, 1981 the rinsate was piped into the on-site surface impoundment described in the Permit Application. Mr. Gohlmann was unsure when the surface impoundment became inactive. Mr. Rip Renn, Paint Room Supervisor, estimated that use of the impoundment ceased around January, 1981.

After the washing and drying process, the tool boxes are painted in the Paint room. Mr. Gohlmann stated that toluene and xylene are used to thin the uncut paint; however, waste solvent is not generated from this activity. The painting operation generates approximately 2-3 drums per month of: paint residual from water fall paint spray booths, used paint filters, and paint covered cardboard and rags. Mr. Gohlmann provided the investigator with Material Safety Data Sheets for the paints used at Union Manufacturing (Appendix 9).

Mr. Gohlmann described the paint stripping operation to the investigator. He explained that tool boxes with defective paint jobs are immersed in a 330 gallon metal tank containing a formula called Westerns-Epoxy-Stripper. The Product Hazard Data sheets indicate that this compound is a mixture of chlorinated solvents (60% methylene chloride), phenolics, acid activators, and surfactants (Appendix 10). Prior to August 1, 1982 a caustic alkalai heat stripper called Q/M #1 was used in this process. After being immersed in the stripping tank, the boxes are dipped in a



drum containing ethylene glycol and a caustic chemical. The solids from the stripping process settle on a screen located at the bottom of the tank. Mr. Gohlmann stated that a maximum of one drum every two months of paint stripping sludge is generated from this activity.

Mr. Gohlmann provided the investigator with a copy of Union Manufacturing's manifest no. 001 (Appendix 11). This manifest states that 36 drums of flammable paint sludge was picked up by SouthWest Solvents on December 1, 1982 for transport to BKK, California. Mr. Gohlmann stated that these drums of waste accumulated on-site since October, 1980.

Following the office interview, the investigator, accompanied by Mr. Gohlmann, observed the site operations. The investigator observed the Phosphatizing Washer (Photograph 1), and the Paint Shop (Photograph 2).

The investigator observed the inactive surface impoundment located near the western property line (Photographs 3-4). Mr. Renn, Paint Shop Supervisor, stated that this impoundment is actually a concrete-lined precipitating tank. Prior to the installation of a new washer in January, 1981; washer rinsate was piped into this leach tank from the building. Mr. Renn stated that chromium, which was used in the old wash process, was removed prior to discharge by adding acids. Mr. Renn stated that the depth of the tank is approximately eight feet, and provided estimates of the tank's dimensions to the investigator. The investigator noted the approximate location of the impoundment (Area B) on a copy of the facility diagram (Appendix 12). Mr. Renn stated that when the impoundment was deactivated, the solids were removed and placed into drums. The tank was then filled in with dirt. Mr. Renn indicated that the solid waste may have been included in the December 1, 1982 waste shipment (See Appendix 11).

The investigator observed an accumulation of paint waste on the soil, below a loading dock in the Paint Storage Room (Photographs 5, 6). Mr. Renn stated that when drums of paint caught on fire, they were thrown off the dock onto the ground. This disposal site is identified as Area D on Appendix 12.

The investigator observed the covered paint stripping tank, located on a concrete pad south of the production building (Photograph 7). The investigator observed the paint stripping sludge disposal area adjacent to the southern and eastern sides of the concrete pad (Photographs 8, 9). Mr. Renn estimated that the land disposal of paint stripping sludge ceased in April, 1981. Approximate dimensions of this disposal site (Area A) are noted on Appendix 12. The investigator observed a pipe, which extends from Area A to a



potentially contaminated area approximately 30-40 feet south (Photograph 10). This pipe is used to drain excess water from the paint stripping sludge disposal area. Dark stains and an accumulation of sludge were observed in this second waste area, especially near the discharge point (Photographs 11-14). A large pool of water was observed in this area (Photograph 12). This wastewater disposal site is identified as Area B in Appendix 12.

Four open drums of sludge were observed on pallets, adjacent to the Paint stripping tank (Photographs 15, 16). Mr. Renn stated that Union Manufacturing has been slowly removing paint stripping waste from the ground, and placing it into the drums. In the future, Mr. Renn plans to reclaim the methylene chloride in the stripping compound by settling the solids in open drums, and skimming the solvent from the surface.

The investigator observed the hazardous waste storage area, which is located approximately 100 feet from the facility parking lot (See Appendix 12). Since the facility is unfenced, all waste management areas are open, and accessible via an unpaved road. The investigator observed 5 drums of waste, which SouthWest Solvents had not accepted in the December 1, 1982 shipment (Photograph 17). According to Mr. Ben Fisler, SouthWest Solvents, these drums were not accepted because Union Manufacturing Inc. was unable to identify the contents.

The investigator observed that one of the drums was open and badly dented, and another drum had an unsecured lid (Photograph 18). Several drums were in poor condition, and the pallets upon which they rested were damaged (Photographs 19, 20). Mr. Gohlmann, who was unable to identify the contents of the drums, stated that the containers are probably labeled incorrectly.

In a follow-up conversation on December 16 with Mr. Koliambas, Controller, Union Manufacturing, the investigator determined that Model Industries purchased Union Manufacturing from Triangle corporation on January 1, 1981.

The investigator completed the attached checklist to determine the facility's compliance with the regulations. Following the checklist are photographs of the facility taken by Karen O'Regan on December 1, 1982.

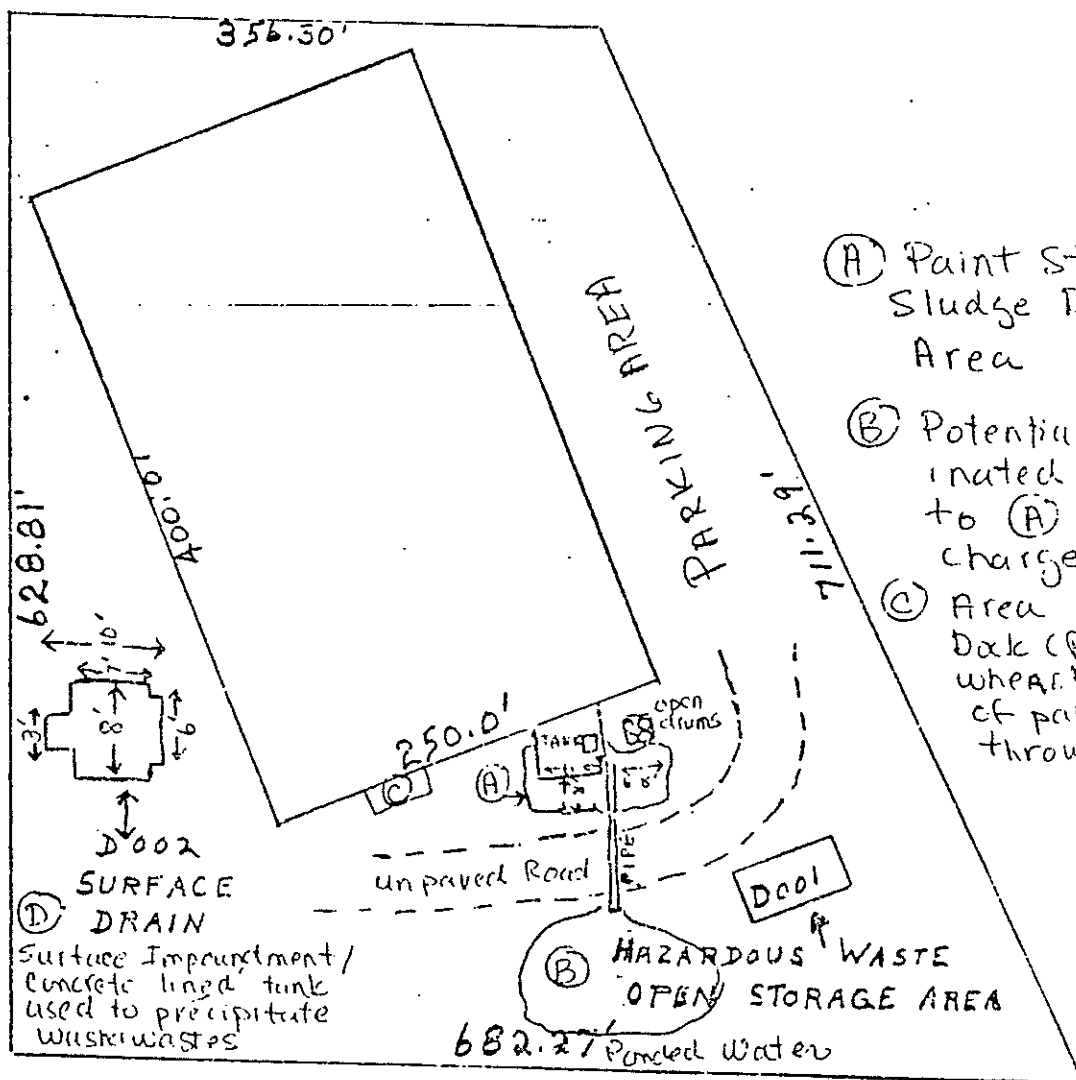


AZ D088301213

12

FACILITY LOCATED ON THE GILA RIVER INDIAN RESERVATION INDUSTRIAL PARK.
 PRIMARILY SURROUNDED BY DESERT WITH SOME AGRICULTURE.
 AREA-FLAT.

Investigator has added waste areas
 (A), (B), (C), (D) to facility diagram per
 Facility Representative's information.



(A) Paint Stripping
 Sludge Disposal
 Area

(B) Potentially Contaminated area connected to (A) via a discharge pipe.

(C) Area below loading dock (Paint Storage) where burning drums of paint used to be thrown.

(D) DRAIN
 Surface Impoundment/
 concrete lined tank
 used to precipitate
 waste/wastes

(B) HAZARDOUS WASTE
 OPEN STORAGE AREA

Scale - 1" = 120'

Partial Closure Plan
Job No. 2583J070

APPENDIX 3
RCRA Interim Status Ground-Water Monitoring Inspection Report



RCRA INTERIM STATUS GROUND-WATER MONITORING
INSPECTION REPORT

INSPECTION OF: Union Manufacturing Inc.
6625 Wallison Road, P.O. Box 760
Chandler, Arizona 85224
EPA I.D. No. AZD088301213

TYPE OF FACILITY: Surface Impoundment (Inactive) and
Land Application of Liquid Waste

DATE: July 23, 1982

PARTICIPANTS: Bill Porter (U.S.E.P.A. Contractor)
Richard W. Hafer (Factory Superintendent,
Union Manufacturing, Inc.)



OVERVIEW

This inspection report reviews Union Manufacturing's Compliance with the ground-water monitoring requirements of 40 CFR 265.90-265.94. Aspects of facility function relevant to ground-water monitoring are also discussed.

FACILITY FUNCTION

The relevant hazardous waste operations at Union's Chandler plant consist of (1) a surface impoundment used for leach disposal of liquid chemicals used in a wash process, and (2) land application of wash from a paint stripping operation, used for leach and evaporation disposal.

*(WHAT WENT
IN THERE
WHEN)*

*WHEN IT WAS
DISCONTINUED
WHAT METHOD WAS*

Only the impoundment (D83) was listed on the Part A application dated 1-15-81, and the use of this pond has been discontinued.
The date of discontinuance and the nature of the wastes discharged to the pond are uncertain, as this occurred prior to Mr. Hafer's employment at the site. In addition to the paint stripping wash, Mr. Hafer believes that phosphoric acid, chromic acid (in low concentrations), and perhaps other chemicals were received by the pond "several years ago", prior to the date of their application.

The wash from the paint stripping operation is currently spread onto the ground. Quantities are estimated to average less than one gallon per day, the operation being intermittent. The



active ingredient in the wash is an "alkaline soaker-cleaner" whose trade name is O/M #1; a material safety data sheet for this substance is included with this report. This substance is hazardous only due to corrosivity (high pH). Paints used at Union do not contain lead or other toxic substances.

Mr. Hafer states that Union received a letter dated 4-24-82 from the Arizona Department of Health Services requesting the completion of a "generator report." He attempted to contact Mr. Bill Williams of that agency by telephone to discuss what steps should be taken, since he does not believe the wash wastes to be hazardous due to their dilution. He was unable to reach Mr. Williams, and other personnel contacted at the department (names not recorded) could not advise him on his situation. The matter has not been pursued beyond this point, and no attempt has been made to withdraw the Part A application. As of this date, the wash wastes have not been analyzed.

COMPLIANCE WITH 40 CFR 265.90-265.94

There is no ground-water monitoring system at this site, and none is planned. Since the characteristics of the wash water have not been determined, and since their Part A application has not been corrected to indicate discontinuance of the pond and the current use of land application, their compliance status is uncertain. If the waste is determined to be hazardous, they should be able to demonstrate "small quantity generator" status, provided they dispose of the waste in accordance with 261.5(g).



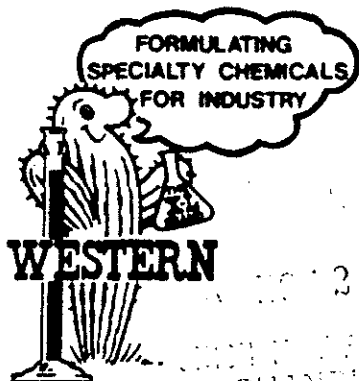
Partial Closure Plan
Job No. 2583J070

APPENDIX 4
Material Data Sheets



attn: mail

WESTERN Industrial Enterprises, Inc.



DIVISIONS
• WESTERN JANITOR SUPPLY
• WESTERN INDUSTRIAL CHEMICAL SUPPLY
• W.I.M.S. MANUFACTURING CO.

REPLY TO: P.O. BOX 25029
PHOENIX, ARIZONA 85002
HDQ: 501 SOUTH 7TH STREET
TELEPHONE (602) 252-1773

PRODUCT HAZARD DATA

Ref. # _____
Date 11/23/82

Product Name WESTERNS- EPOXY-STRIPPER Number 3 12 82
Supplier Western Industrial Enterprises, Inc.
Manufacturer's Address 501 S. 7th Street
Phoenix, AZ 85034

General description of product COLD DIP TANK CLEANER THAT REMOVES CARBON, PAINT, LEAD, VARNISH, GREASE, FILM, GUMMY RESIDUE, OIL, DIRT, ETC.

1. ☐ Please check here if the handling, storing, use and contents of this product present no recognized, significant life, fire or explosion hazards. (signature required) _____

If product presents potential hazards, please complete all applicable sections below in detail:

2. Chemical Composition (specific chemical names of all potentially hazardous contents and approximate percentage)
FORMULA CONSISTS OF "CHLORINATED HYDROCARBONS," PHENOLIC _____ %
INGREDIENTS, CORROSION INHIBITORS, PENETRANTS, BIODEGRADABLE _____ %
WETTING AGENTS AND SURFACTANTS _____ %

3. Properties: Toxicity, Fire and Explosion Factors

- A. Flash Point (c.c.) None (o.c.) None
B. Explosive Limits (% vol. in air) Lower 100 Upper _____
C. Auto-ignition temperature, F. N/A
D. Threshold Limit Value (TLV) 350 PPM
E. Maximum Allowable Concentration (MAC) Not Known
F. Minimum Lethal Dose (MLD) Not Known
G. Vapor Density Not Known

- H. If fire can result in formation of other hazardous compounds or gases, please identify and explain hazard and precautions:

CONTACT WITH FLAME OR HOT SURFACES MAY PRODUCE TOXIC GASES THAT ARE FATAL

- I. Recommended extinguishing agents and precautions FOAM OR DRY CHEMICAL OR CO²



4. Recommended Precautions for transporting, storing and handling STORE AWAY FROM HEAT OR FIRE
AND KEEP IN SHADED AREA - AVOID SPURTING OF CONTENTS WHEN OPENING CONTAINER

5. Procedures in event of container leakage or damage MOP UP SPILLAGE AND VENTILATE TO DRYNESS
DO NOT GET LIQUID ON BODY AND KEEP WELL VENTILATED.

6. Health Hazards and Precautions for normal use:
WARNING: VAPOR HARMFUL-USE ONLY WITH ADEQUATE VENTILATION-AVOID PROLONGED OR
REPEATED BREATHING OF VAPOR-AVOID PROLONGED OR REPEATED CONTACT WITH SKIN-
DO NOT TAKE INTERNALLY (STORE IN COOL COVERED LOCATION-KEEP BUNG TIGHTLY
CLOSED MAY BE FATAL IF SWALLOWED. CONTACT WITH FLAME OR HOT SURFACES
MAY PRODUCE TOXIC GASES.

7. Early Exposure Warning Signs (dizziness, etc.)
Acute: EYE AND SKIN IRRITATION, HEAVY INHALATION RESULTS IN LOSS OF COORDINA-
TION, DROWSINESS, HEADACHE, DIZZINESS, NAUSEA, VOMITING.

Chronic: MAY BE FATAL IF SWALLOWED

8. First Aid Treatment

Exposure (inhalation, etc.)

Treatment

AVOID BREATHING VAPORS

IF CONTACT WITH SKIN:

WASH OFF WITH SOAP OR DETERGENT.
RINSE WITH PLENTY OF WATER.

CONTACT WITH EYES:

FLUSH IMMEDIATELY WITH WATER FOR AT
LEAST 15 MINUTES. GET MEDICAL ATTEN-
TION IMMEDIATELY.

(DO NOT TRANSFER CONTENTS TO BOTTLES
OR OTHER CONTAINERS. CLOSE CONTAINER
AFTER EACH USE.)

Antidote, if swallowed: INDUCE VOMITING BY GIVING A TABLESPOON OF SALT IN A GLASS OF WARM WATER
AND REPEAT UNTIL VOMIT FLUID IS CLEAR: THEN GIVE 2 TEASPOONS OF BAKING SODA IN A GLASS OF
WATER. REMOVE PATIENT TO FRESH AIR, AND HAVE HIM LIE DOWN AND KEEP WARM. COVER EYES TO

9. Recommended Personal Protective Equipment EXCLUDE LIGHT. CALL PHYSICIAN IMMEDIATELY.

CHEMICAL SPLASH GOGGLES, NEOPRENE APRON,
LONG ARM NEOPRENE GLOVES.

10. Additional Comment or Recommendations

READ LABEL THOROUGHLY BEFORE USING. IN WARM WEATHER CONTENTS WILL EXPAND AND
CREATE PRESSURE WHICH COULD CAUSE CONTENTS TO SPURT OUT WHEN OPENING DRUM.

Please Attach Container Label, Data Sheets or Other Information Relating to the Safe Use of Your Product.

Information Furnished by:

NAME RONALD J. HARTNETT

TITLE TECHNICAL DIRECTOR

COMPANY WESTERN INDUSTRIAL ENTERPRISES, INC.

ADDRESS 501 S. 7TH STREET, PHOENIX, AZ 85034

"Thank You For Your Contribution To The Safety and Health In Our Plant."

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME DuBois Chemicals	EMERGENCY TELEPHONE NO. (513) 769-4200
ADDRESS (Number, Street, City, State, and ZIP Code) 3630 East Kemper Road, Sharonville, OH 45241	
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS O/M #1
CHEMICAL FAMILY Alkaline soaker cleaner	FORMULA

SECTION II — HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
Caustic alkali				43	2 mg/M ³

SECTION III — PHYSICAL DATA

BOILING POINT (*F.)	None	SPECIFIC GRAVITY (H ₂ O = 1)	1.1 to 1.2
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT VOLATILE BY VOLUME (%)	0
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE (n-butyl acetate = 1)	< 1
SOLUBILITY IN WATER	20%		
APPEARANCE AND ODOR	Tan to brown powder; mild odor		

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	LeI	UeI
			None	None
EXTINGUISHING MEDIA	CO ₂ , foam, dry chemicals			
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME

Turco Products, Inc.

EMERGENCY TELEPHONE NO.

(213) 634-3300

ADDRESS (Number, Street, City, State, and ZIP Code)

24600 South Main Street, Carson, Ca 90749

CHEMICAL NAME AND SYNONYMS

TRADE NAME AND SYNONYMS

Turcoat Hibi-Seal

CHEMICAL FAMILY

FORMULA

SECTION II - HAZARDOUS INGREDIENTS HAZARDOUS MIXTURES OF LIQUIDS, SOLIDS, OR GASES

	C.A.S. NUMBER	DOT SPILL CAT.	EPA WASTE NUMBER	%	TLV UNITS
Phosphoric Acid	7664-38-2	D	D002	1	1mg/m ³
Morpholine Phosphate	63079-67-4	Un-listed	Un-listed	53	Not established

Other components not defined as hazardous by U.S. Dept. of Labor.

Carcinogens per OSHR, 5/3/73

None

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	212 °F	SPECIFIC GRAVITY (H ₂ O=1)	1.25
VAPOR PRESSURE (mm Hg.)	35	PERCENT, VOLATILE BY VOLUME (%)	56%
VAPOR DENSITY (AIR=1)	More than 1	EVAPORATION RATE (Bu. Ac. = 1)	Less than 1
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Clear Yellow liquid, slight ammonical odor		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lei	Uei
EXTINGUISHING MEDIA	Water spray, Carbon dioxide			
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

5034-1





PRODUCT PROFILE

TECHNICAL DATA

DATE: August 1968

OAKITE FH: Final rinse for Oakite CrysCoat Process

RECEIVED MAY - 9 1983

PRIMARY APPLICATIONS

A final acidic rinse after Oakite CrysCoat conversion coatings.

Oakite FH is also used for removing certain carbonized and polymer deposits in petroleum and petro-chemical plants, for removing carbonaceous deposits from aluminum rubber molds, for stripping certain epoxy paints, and for removing anodized coatings from aluminum.

CHEMICAL CHARACTERISTICS

chemical composition	chromic and mineral acids
physical form	orange-red liquid
odor	none
specific gravity	1.594 at 68°F.
viscosity	10 cps
flash point	none
hygroscopic tendency	slight
foaming tendency	none
recommended diluent	water
behavior in hard water	keeps hard water salts soluble
rinsability	complete if still wet; develops thin, insoluble film when allowed to dry open
biodegradable	yes
normal operating temperatures	160° to 190°F.
effect of prolonged boiling	none
normal working concentrations	1/32% to 1/10% by volume or 4 to 12 fl. oz./100 gal. as a rinse following conversion coatings (for other applications, see below)
pH at working concentrations	3.5 - 5.0

APPLICATION PROCEDURE

As a final rinse in Oakite CrysCoat Process: Oakite FH is used at a concentration of 4 to 12 fl. oz./100 gal. of water. The pH of the rinse should be between 3 and 5. Temperature should be between 160° and 190°F. To avoid contamination by carry-over, it is advisable to dump and renew Oakite FH solution every 24 hours or less, depending on the volume of work processed.

For removing carbonized deposits: Oakite FH is used at 20% by volume with water at 160° to 180° F.

OAKITE PRODUCTS, INC., 50 VALLEY ROAD, BERKELEY HEIGHTS, N. J. 07922
in Canada
OAKITE PRODUCTS OF CANADA, LTD., 115 EAST DRIVE, BRAMALEA, ONT.
Technical Service Representatives in Principal Cities
International Division, Cable: OAKITE, BerkeleyHeights



For cleaning aluminum rubber molds: Oakite FH is used at 25% to 35% by volume at 180° F. Molds are immersed for 3 to 5 minutes, or longer, followed by a fresh water rinse.

For stripping certain epoxies: Oakite FH is used at 25% by volume with water at from 160° to 180° F., for the required time followed by a thorough rinse. Care should be exercised in stripping epoxies which are easily oxidized. Heat may be generated.

For removing anodized coatings from aluminum: Oakite FH is used at 10% by volume with water at 160° to 180° F.

Solution control: When used as a final rinse and discarded frequently, titration is seldom required. Where titration is required, use a factor of 25 ml. and Oakite Procedure 44. For titrating higher concentrations of Oakite FH, use Oakite Procedure 18. Titrating equipment, testing solutions and detailed procedures are available at no charge.

NOTES ON USE

Oakite FH is a highly acidic material, and proper handling precautions should be observed.

Mild steel or black iron heating coils and tanks are suitable for Oakite FH solutions.

DISPOSAL

If required by local regulations, the following treatment should be used: Hexavalent chromium is reduced to trivalent chromium with Oakite Dispoz-Aid No. 1 and then precipitated with Oakite Dispoz-Aid No. 2. The surface liquid is dumped down the drain; the precipitated chromium sludge is hauled away.

PACKAGING

Oakite FH is packaged in cases of four 1-gallon glass bottles totaling 52 lbs. net. It is also available in non-returnable steel drums of 250 lbs. net.

SHIPMENT

May be shipped by any common carrier. Freight classification is "Chemical NOIBN-White Label!"

STORAGE

Suitable for general storage. However, in the case of glass containers, consideration should be given to the proximity of organic or oxidizable material in the event of accidental breakage.

effect of low-temperature storage none (slushes at -40°F.)

effect of high-temperature storage none

effect of aging none



MATERIAL SAFETY DATA SHEET

NPC.

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP.

Section I

MANUFACTURER'S NAME Deer-O Paints & Chemicals, Ltd.

STREET ADDRESS 2431 E. Van Buren

CITY, STATE, AND ZIP CODE Phoenix, Arizona 85001

EMERGENCY TELEPHONE NO. (602) 275-5444

PRODUCT CLASS Alkyd - Urea

MANUFACTURERS CODE IDENTIFICATION

TRADE NAME Dipping Enamel - Red

Y 925M

Section II - HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT	TLV		LEL	VAPOR PRESSURE
		PPM	mg/M ³		
Xylene	< 5%	100		1.1%	10mm@86°
Butyl Cellosolve	5%	100		1.8%	2mm@ 20°
Chevron 265	10%	100		1.1%	10mm@86°
Socal #1	10%	100		1.0%	17mm@77°
Socal #2	< 5%	N.A.		1.0%	5mm@77°
Butanol	< 5%	100		1.6%	8mm@20°
Socal #3	< 5%	N.A.		1.1%	5mm@100°
Lead Chromate Pigment (expressed as metal)	3.07%				

Section III - PHYSICAL DATA

BOILING RANGE 218° F - 410° F

VAPOR DENSITY ☒ HEAVIER ☐ LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☒ SLOWER THAN ETHER

PERCENT VOLATILE BY VOLUME 58.20% WEIGHT PER GALLON 8.09 lbs

Section IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY Red Label - Flammable

FLASH POINT 85° F

LEL 1.0%

EXTINGUISHING MEDIA CO₂ Dry Chemical High Pressure Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS Combustible. Do not store or mix with strong oxidants. If pressure in closed container builds due to heat, water may be used to cool container. Keep away from sparks and open flame.

SPECIAL FIRE FIGHTING PROCEDURES In case of fire, do not enter the fire area without proper protective equipment, including self-contained breathing apparatus.



U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME Federated Paint Mfg. Co.		EMERGENCY TELEPHONE NO. (312) 243-4433
ADDRESS (Number, Street, City, State, and ZIP Code) 1802 S. Normal Chicago, Illinois 60616		
CHEMICAL NAME AND SYNONYMS Alkyd Urea		TRADE NAME AND SYNONYMS Rule 205 Red Baking Enamel
CHEMICAL FAMILY Synthetic	FORMULA R 1046	

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS Molybate Orange	11½	.05 mg/m ³	BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS * Blend See Below	63		FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
* VII&P Naphtha				70	110
Butanol				10	50 Skin
#100 Solvent				7	100 Skin
Mineral Spirits				13	130

SECTION III - PHYSICAL DATA

BOILING POINT (°F.) Blend Range	210-280	SPECIFIC GRAVITY (H ₂ O=1)	1.0
VAPOR PRESSURE (mm Hg.) Blend Range	2.0-9.5	PERCENT VOLATILE BY VOLUME (%)	63%
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (Bu. Ac. = 1) Blend Range	.06-.75
SOLUBILITY IN WATER	Trace		
APPEARANCE AND ODOR Red Paint with Aromatic and Aliphatic odor			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) Tag Closed Cup 65 °F	FLAMMABLE LIMITS	Lel .9	Uel 10.0
EXTINGUISHING MEDIA Foam & Carbon Dioxide			
SPECIAL FIRE FIGHTING PROCEDURES Avoid solid stream of water (will scatter flames) Water fog will cool burning surface			
UNUSUAL FIRE AND EXPLOSION HAZARDS Flammable vapors will form explosive mixture with air.			

Partial Closure Plan
Job No. 2583J070

APPENDIX 5
Preliminary Analysis of Surface Samples



LABORATORY REPORT

Client Union Manufacturing, Inc.
6625 West Allison Road
Chandler, Arizona 85224

Job No. _____
Lab/Invoice No. 22121241
Date of Report 1/21/83

Project Soil Contamination Evaluation
Location Hazardous Waste Open Storage Area
Material/Specimen Water/Soil Sampled By WTI/F. Amalfi Date 12/14/82
Source Open Storage Area Submitted By WTI/F. Amalfi Date 12/14/82
Test Procedure Shown Below Authorized By UMI/M. Gohlmann Date 12/14/82

RESULTS

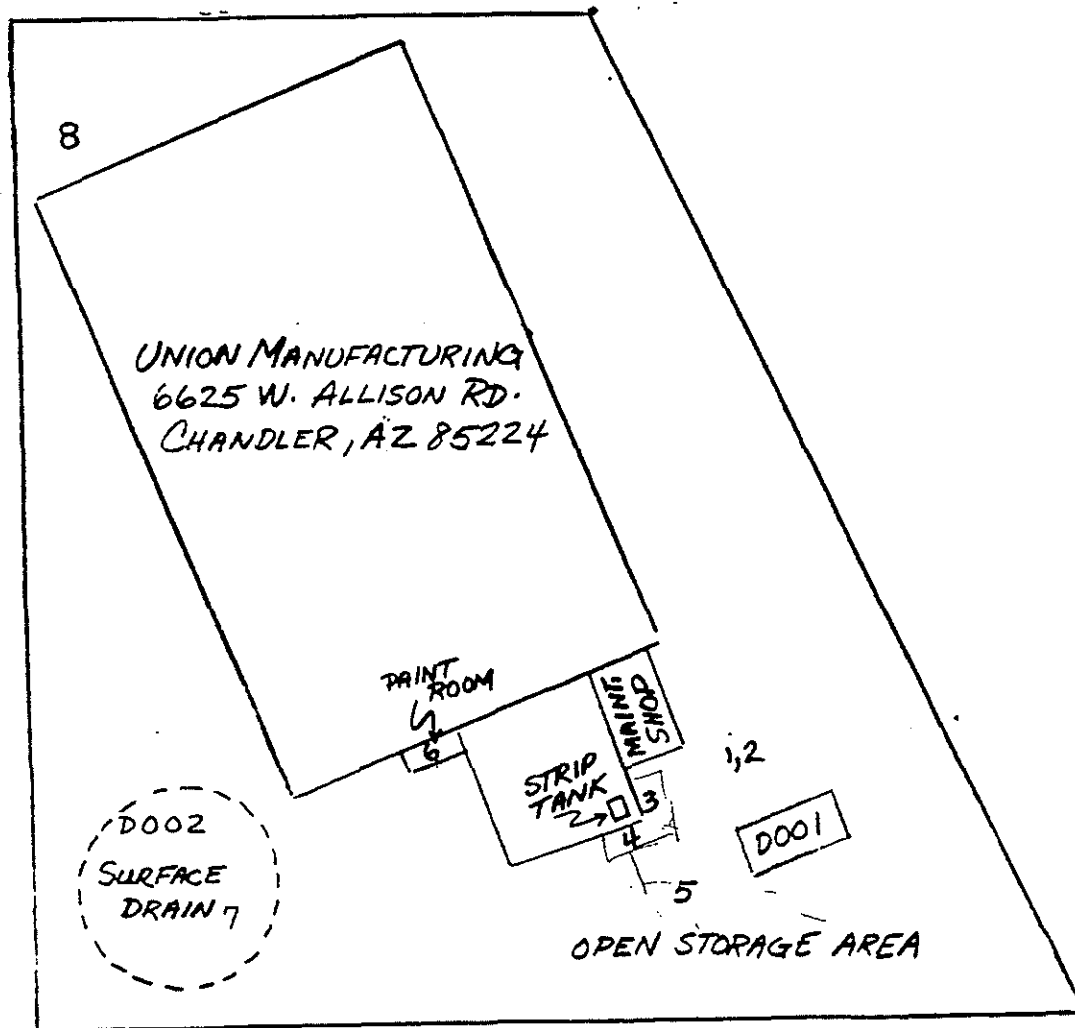
See attached for sample location identification.

Sample ID	Lead ^a (ppm)	Phenol ^b (ppm)	pH ^c	Flash Point (°F)
1	1.31	4.14	7.7	No Flash to 212
2	739.	1.79	8.3	No Flash to 240
3	6260.	14000.	7.3	No Flash to 240
4	4560.	6220.	7.9	No Flash to 240
5	1700.	85.1	8.6	No Flash to 240
6	22800.	26.1	Insoluble	78
7	28.7	4.77	7.0	No Flash to 240
8	18.8	<1.	7.2	No Flash to 240
	Perchloroethylene ^d (ppm)			Methylene Chloride ^d (ppm)
1	<0.1			0.30
2	<0.1			0.65
3	0.64			<0.1
4	3.5			8.7
5	<0.1			0.88
6	2.25			1.36
7	<0.1			0.43
8	<0.1			0.28



Test Procedures

- a. Nitric/hydrochloric acid digestion followed by atomic absorption spectroscopy; ppm as received.
- b. Distillation followed by spectrophotometry; ppm as received.
- c. Sample 1, pH as received; Samples 2-8, water extract 20g to 40ml.
- d. analysis by gas chromatography, ppm as received.



Sample Collection Location/Plot Plan

1. Standing water in front of maintenance shop.
2. Soil under standing water in front of maintenance shop.
3. Soil immediately east of paint stripping tank.
4. Soil immediately south of paint stripping tank.
5. Soil under standing water approximately 30m south of stripping tank.
6. Soil immediately south of paint room storage area.
7. Soil from old leach pond.
8. Soil in front of main building (control samples).

cc: Addressee (1)

Reviewed By: Frederick A. Amalfi
Frederick A. Amalfi, Manager

Union Manufacturing, Inc.
Job No. 2174J018

Attachment 6.

EPA Region 1X Correspondence





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

215 F Street, N.W.
San Francisco, CA 94107

3 OCT 1983

Mr. Claude B. Siemen
Model Industries Inc.
Hwy 47 at Cannonball Trail
Yorkville, Illinois 60560

Re: AZD088301213

Dear Mr. Siemen:

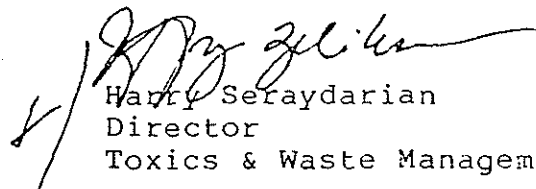
EPA has completed its review of the results of the Phase I sampling and monitoring program at the Union Manufacturing facility which you submitted on September 6, 1983.

EPA hereby approves your Closure Plan. Please proceed immediately with the removal of contaminated soil in Areas A, B and C. Our review of the sampling and monitoring results submitted indicates that no removal of contaminated soil or the concrete structure will be needed in Area D. Contaminated soil should be removed in Areas A and B until the maximum concentration of lead and chromium for the characteristic of EP toxicity (5 ppm) are not exceeded. Contaminated soil should be removed from Area C until background levels for xylene and toluene are reached.

Please submit the certification of closure by an independent registered professional engineer when closure is completed. We would appreciate receiving copies of the hazardous waste manifests used to transport the contaminated soils to an approved disposal site.

If you have any questions or require additional information, please contact Paul D. Blais at (415) 974-8129.

Sincerely yours,


Harry Seraydarian
Director
Toxics & Waste Management Division

cc: Norm Weiss, Arizona Dept. of Health Services

RECEIVED

OCT 17 1983

WESTERN TECHNOLOGIES, INC.
PHOENIX, ARIZONA



JUN 22 1983



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

215 Fremont Street
San Francisco, Ca. 94105

June 20, 1983

Mr. Claude B. Siemien
Model Industries Inc.
Hwy 47 at Cannonball Trail
Yorkville, Illinois 60560

Re: AZD088301213

Dear Mr. Siemien:

EPA has completed its review of the Partial Closure Plan submitted on May 24, 1983 as part of the Consent Agreement concerning Docket No. 9-83-RCRA 6. EPA finds the plan acceptable in terms of being able to define the areal and vertical extent of contamination to be addressed at the facility as long as the following changes are made:

1. Sections 3.2.1.3, 3.3.1.3 and 3.4.1.3-- The surface sample should be collected 1 foot downgradient from the apparent contaminated area.
2. Sections 3.2.2.3, 3.3.2.3 and 3.4.2.3-- The last three words should be "color or odor".
3. Section 5.1-- Soil removal and decontamination can only proceed after the public comment period required by 40 CFR 265.112(d) has passed, and EPA has approved the Closure Plan in writing.

Please proceed immediately with the Phase I sampling and analysis portions of the plan. Please provide this office with the analytical results of the sampling activities as soon as they are received from the laboratory.

In accordance with 40 CFR 265.112(d), EPA will place a public notice in the local Arizona newspaper indicating the availability of the Closure Plan and the opportunity for public comment. At the end of the thirty day public comment period, you will be authorized in writing to commence soil removal operations assuming no significant public comments are received.

On May 31, 1983, we received the certificate of insurance for sudden accidental occurrences as required by Item IV.3 of the Consent Agreement. However, we did not receive the documentation establishing what the Respondent's obligation is with regard to nonsudden accidental occurrences under 40 CFR 265.147(b). Please submit this documentation at your earliest



convenience.

If you have any questions or require additional information,
please contact Paul D. Blais at (415) 974-8129.

Sincerely yours,

Nancy Frost for

Phil Bobel, Chief
Toxics & Waste Programs Branch

8119

cc: Bruce Scott, Arizona Department of
Health Services

